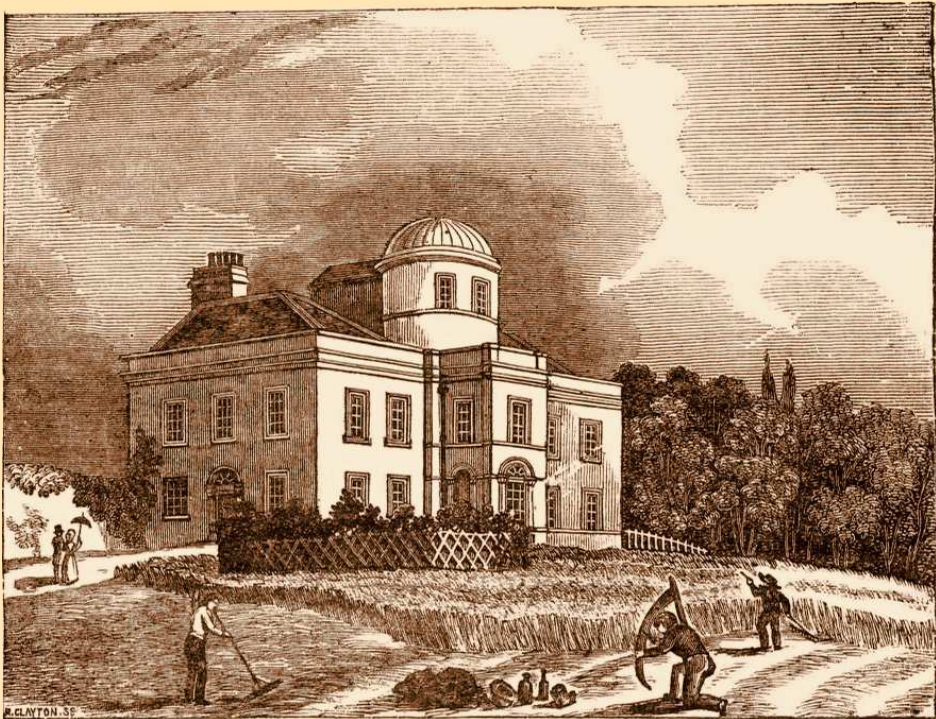


# A Victorian Marriage

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Sir William Rowan Hamilton



Anne van Weerden



**Dit essay is opgedragen aan mijn veel te vroeg overleden  
vriend Emile Domis (1942-2002).**

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The illustration on the front page comes from the *Dublin Penny Journal*,  
Vol. IV, August 15, 1835, No. 163, p. 49.

It can be found at <https://babel.hathitrust.org/cgi/pt?id=nyp.33433081677647;seq=59>.

It shows Dunsink Observatory, Ireland, at the time the Hamiltons lived there. The Observatory was  
built in 1785 at an elevated and very dark place, ideal for observing the heavens.

But therefore also very remote.



# A Victorian Marriage

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Sir William Rowan Hamilton

Anne van Weerden, BSc

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## Statement Regarding Anne van Weerden's

### *A Victorian Marriage : Sir William Rowan Hamilton*

As a scholar who has long had an interest in William Rowan Hamilton (1805-1865) (widely recognised as Ireland's most gifted scientist), I was very pleased to have a chance to read Anne van Weerden's *A Victorian Marriage : Sir William Rowan Hamilton*. In writing my first book, *A History of Vector Analysis : The Evolution of the Idea of a Vectorial System* (Notre Dame, Indiana: University of Notre Dame Press, 1967), I had read R. P. Graves' three-volume biography of Hamilton. Later as I read and reviewed the biographies by Sean O'Donnell and the masterly volume by Thomas Hankins, I found myself not only fascinated by his extraordinary contributions of mathematics and physics, but also by his personal life. I was delighted to learn from an email in early 2014 that my *History of Vector Analysis* was being used as the text for a graduate course at the University of Utrecht. The person who informed me of this was Anne van Weerden, who was enrolled in the course. Periodically she would send me thoughtful questions on some of the key issues discussed in the course.

Some months later, Anne wrote to say that she had completed an essay for the course and wondered if I would be interested in reading it. Through the magic of electronic communication, she was able immediately to send the document, which turned out to be a book length analysis of two key features in Hamilton's personal life: his marriage and his possible abuse of alcohol. These issues are always delicate and difficult to treat; in Hamilton's case, this was especially true. I was well aware that a number of biographical sketches of Hamilton's life had treated these matters in a superficial and misleading manner.

Initially I was suspicious of her treatment, but I rapidly came to see that she is a scholar of unusual energy, refined sensitivity, deep commitment to accuracy, and balanced in her treatment of these important and complex issues. In preparing her study, she had read deeply into the literature on Hamilton, which is very extensive. As I recall, Graves' biography alone extends over two thousand pages. Hankins' biography is nearer to normal sized, but is widely regarded as among the finest biographies of a scientist ever written.

Becoming convinced that Ms. van Weerden somehow has acquired deep historical sensitivities and an unwavering commitment to careful scholarship, I encouraged her to try to find ways to make her study on Hamilton available to the scholarly community. I am pleased that she has taken actions that should make her careful research permanently available to scholars in the history of science and mathematics and also

those interested in Irish science, in which Hamilton was so prominent. The value of her study extends beyond the biography of Hamilton; in my judgment, it suggests the importance of careful studies of the personal lives of the most intelligent persons in our intellectual heritage. Moreover, reading her study has reinforced my conviction that the growing number of women writing about the history of science will not only expand but also enrich our field.

Michael J. Crowe

Rev. John J. Cavanaugh Professor Emeritus in the Program of Liberal Studies and  
Graduate Program in History and Philosophy of Science, University of Notre Dame,  
Notre Dame, Indiana U.S.A.

December 2014



# Acknowledgements

I am thankful to a lot of people. First to Steven Wepster and Viktor Blåsjo for organizing the seminar; without this seminar I would not have had any thoughts about the personal life of this great scientist, let alone of his wife's.

I want to thank Eli Sarkol, my partner for life, who always stands by my side, reads everything I write, thinks along with me and, indefatigable, always finds details to discuss which always leads to improvements, and who believes in me even when I think ...

I am very grateful to Lodewijk Palm, who took the trouble of reading my Dutch chapter at the time I still thought I was able to transform it into a rather short article. He was the one who advised me to read Hankins' biography and incorporate the extra information I would find in it; without him this essay would have been quite different, or probably even non-existent.

One of my fellow students at the seminar, Lara van Zuilen, read the entire essay and gave very many very useful comments; thank you very very much.

Also my long-time colleague Jan Jansen read the entire essay; thank you for sharing your intriguing story about your own strange experience after only one or two beers. Which, just as in Hamilton's case, never happened again.

On the 16<sup>th</sup> of October 2015 we walked the Hamilton Walk,<sup>1</sup> from the Observatory to Broom Bridge, in the very pleasant company of Neil Hallinan; it soon turned out that we shared many opinions. Thank you very much for an interesting Walk and for reading my essay, and for your information about Catherine Disney's year of birth and her wedding day.

Vera Sarkol, thank you very much for many useful comments, cleaning up my English, and helping me with English sayings.

Phil Zacharias, I learned a lot from your explanations about English rules for singular and plural forms of verbs, and from your pointing out "confusing sentences"; I very much appreciated your efforts.

Herman Engelbart and Katrien van Tuijl, thank you so much for scrutinizing my last chapter. Without you I would have done the same thing Graves did: trying hard to prove that Hamilton was not an alcoholic, but writing it down in such a way that a psychiatrist would conclude that he was.

One of my many neighbours Johan Janssen, thank you for your very nice remarks about my first chapters.

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<sup>1</sup> See Maynooth University: *Department of Mathematics & Statistics*. <http://archive.maths.nuim.ie/hamiltonwalk> [Accessed 20 Nov 2015].

Rietje Smeets, thanks again for your always positive and useful criticisms about appearances.

I hereby thank Rob van Gent for thinking along and giving useful advice, and Wolfgang Steinicke and Peter Louwman for information about Lord Rosse's 'Leviathan' telescope and the confirmation that there was no detection of a spiral pattern in August or September 1848.

Thank you Marijke Niessen, for so openly enjoying the reading of my drafts!

Mielke Sarkol helped with the website and commented on my ideas about Hamilton's life; thank you very much indeed.

Thank you Jean Ferran, for interesting emails which provided much information about the family tree of especially Helen Bayly and particular circumstances of family members.

Maarten Sarkol, thank you for your always splendid ideas about how to handle computers and websites. And for making a beautiful epub template.

To my other family members, friends and colleagues, Alex and Dayenne Sarkol, Richelmo Esposito, Frits Kruijt, Wim van Hattem, Jeroen Bosman, Ria Bekkering, Jean Arthur, Paulien Wiersma and my former roommate-at-work Anne Rutgers: sorry for talking so much, and getting so preoccupied, about some Irish couple, born more than 200 years ago. And thanks for helping with ideas, knowledge and advice, and for saying so often how interesting it all is...

Naomi and Nala Sarkol, thank you for being such wonderful granddaughters. It is always fun to have you stay with us!

Aan onze kleinzoon Nando Sarkol, die maar zo kort heeft geleefd: Dag prachtig kindje, het ga je goed.

Hé, mirthful Niam Sarkol, welcome to the world! [Added 2017.]

Finally, to my sister and brother Fransje en Rein: thanks for publishing my essay and building my website. I am very happy with what you both did; without you this book would not have had any serious form, neither as a paper- nor as an oae-book, an open-access-electronic-book.

## The *Internet Archive*

It is perhaps uncommon, but I would like to express my gratitude to the founders and maintainers of the *Internet Archive*,<sup>2</sup> and to the people who scanned and uploaded all the books it contains. During the writing of this essay I made very heavy use of the *Archive*; I used the three volumes of Graves' biography<sup>3</sup> almost every day and never even saw them in a paper form. And as can be seen in very many footnotes throughout this essay: the *Internet Archive* appeared to be full of treasures.

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<sup>2</sup> The *Internet Archive*, <https://archive.org>.

<sup>3</sup> [Graves, 1882], [Graves, 1885], [Graves, 1889]

# Preface

*The aim of this essay is to show that, contrary to general belief, Sir William Rowan Hamilton had a good marriage, that in fact large parts of his marriage were fairly happy. It is discussed where the idea of his marriage as having been an unhappy one came from, and it is shown that according to current standards he was by no means an alcoholic.*

To come straight to the point: this essay is not meant to be a biography; it is meant as a defense and is written as such, I simply put in everything I thought was necessary to make my points as summarized above. I wrote it after following, in 2014, an interesting seminar on the History of Vector Calculus at Utrecht University. In the last weeks of the seminar, the students who had attended it wrote, two-by-two, short essays about subjects we had discussed, and I was the editor of the final essay bundle. The group consisted of an uneven number of students and therefore my assignment was, next to being the editor, to write the preface of our essay bundle. Having read the essays, while writing the preface it became obvious that Hamilton should be named explicitly; he found the quaternions from which vector analysis emerged.

Searching for information about Hamilton and reading a variety of short biographical sketches, which can be found all over the internet, I started to wonder: why would someone like Hamilton just marry ‘some girl from across the fields who was extremely shy and very often seriously ill’ as is almost invariably written in these sketches, something which had, together with his alleged alcohol abuse and the relentless writing about his quaternions, made me slightly dislike him. Seeing the most well-known photograph of Hamilton<sup>4</sup> made things worse; in my eyes it could definitely be the photograph of someone who drank too much.

But then, reading on the *Internet Archive* the three-volume biography written by Robert Perceval Graves, published in 1882, 1885 and 1889 and impressive in its enormity, while realizing that it has, even twice, been flawlessly scanned, my view on Lady Hamilton changed; although she had a weak health, she did not appear to have been the just timid and secluded woman she is usually taken for. Thereupon, slowly since I had been biased before reading the biography, I became aware of the equally bad character assassination, mainly by the biographical sketches, of Hamilton himself as having been an alcohol abuser. I decided to write an extra chapter for our essay bundle, stating that Hamilton surely drank alcohol, but that he was not an alcoholic.

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<sup>4</sup> In this essay that photograph can be found on p. 17, the second row, fourth from the left.

Having written the chapter in the short time available I had not actually read the 1980 biography by Thomas Hankins,<sup>5</sup> I had just skimmed through it, looking for the most important information about Hamilton's 'lost love', a woman Graves only wrote about in a very concealed way. But while considering what to do with what I had written, perhaps translate it into English, someone kindly suggested that I should more completely incorporate the extra information about Hamilton's personal life which Hankins' biography provides. Since I was also very curious whether my ideas about Hamilton, his marriage and his ways of drinking alcohol would hold after reading it I borrowed, from the University Library where I work, Hankins' book.

Graves left gaps in his biography concerning subjects he may have considered harmful to Hamilton's posthumous reputation; Hankins filled these gaps with information Graves only hinted at, or did not even mention at all. This extra information did not lead to a change of my ideas, on the contrary, they became stronger, whereupon I decided to try to find out why Graves seems to have described Hamilton as an unhappily married alcoholic.

There appeared to be possible answers indeed, and this essay is written in such a way that in order to have an overview of the grounds on which they are based it is actually enough to read the table of contents, the first and the last chapter. The intermediate chapters were needed to refer to while making the arguments, but they also enable visualizing how Hamilton lived his daily life. Hamilton's work will not be discussed here; it is carefully and extensively described by Hankins, together with many other aspects of Hamilton's life such as his parentage and descent, his youth, his religious, philosophical, social and political views during those for Ireland tumultuous years, and his presidency of the Royal Irish Academy. In this essay these sides of Hamilton's life are only briefly discussed when necessary to clarify my claims about his marriage or his use of alcohol.

Of course, there will be many flaws in this essay: I have a bachelor in theoretical physics with a good amount of astronomy and including Hamiltonian mechanics, but I am not a psychologist, not a physician, not a theologian, not a mathematician, not an historian, yet I express stark opinions and ideas about these topics, and my reasonings will thus be apt for improvement. But my goal is not to be right in every detail; it is to change the view on Hamilton's personal life. I realize that I even cannot be right about everything since I did not read Hamilton's letters and notebooks myself, and, especially, I did not see the correspondences which were left out by Graves and which are only briefly discussed by Hankins. What I hope to achieve is that someone will write a new biography, inspired by the views in this essay; three main biographies will still not be too much for such an important scientist as Hamilton.

I started writing this essay having planned an article of some twenty-plus pages, but it digressed to slightly more than that. A part of the digression is due to the decision to often give large parts of letters and many of Hamilton's poems in full, contrary to what I had planned. The main reasons for the decision to do so are similar to Graves' reasons to give, at the beginning of the chapter about Hamilton's childhood in the first volume of the biography, large parts of some of Hamilton's early letters, and of some letters of the adults around him. Graves explained his motives to do that by writing: "The reader must be prepared to meet in this chapter with passages from letters which otherwise might strike him as of too domestic a character for

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<sup>5</sup> [Hankins, 1980]

introduction into a biography, and it is true that I might have extracted and condensed the facts they record, and narrated them in my own language. Had I done so, however, although space might have been economised and all material facts preserved, they would have lost [...] that portion of the evidence for their reality which adheres to such records, not passing on to secondary testimony. And I have thought that in this instance the facts deserved and required the fullest evidence.”<sup>6</sup>

While writing this essay it became increasingly evident that it was simply necessary to know what Hamilton wrote himself about his marriage and his family, his feelings and his daily life, in order to gain a clear enough picture of him and of his motives to make certain decisions, and therewith to underpin the statements made in this essay. It appeared to be very hard to describe the life of a great man who lived in fact a very quiet, or rather, uneventful, daily life. What was so special about him had all to do with his work; the greatness was all in his head.

Luckily, the digression did not get so out of hand that it took the rest of my life, as Hamilton’s second book did. I wrote this essay while most of the time standing, in order to prevent pain in my legs from sitting still for hours on end, at my extremely untidy desk. And, like Hamilton, I often only stopped writing somewhere in the middle of the night after having worked for twelve consecutive hours or more. I ended my writing sessions drinking a glass of port, or two, but, like him, I do not think I am, or will be, an alcoholic, although I do like port slightly more than I probably should. Sadly, I do not share his mathematical intelligence, but then, who does.

## Illustrations

The pocketbook page containing the quaternion formulae – p. 12.

The Hamilton family – p. 17.

Ground plan of Dunsink Observatory around 1905 – p. 85.

The three neighbouring houses: Dunsinea, Scripplestown and Scribblestown – p. 158.

Beauty in Victorian times – p. 266.

## Post scriptum

To my great surprise, Michael J. Crowe also took an interest in my work; I had hoped but not really expected that. I had contacted him at the start of the seminar with a question about his 1967 book *A History of Vector Analysis*. Every now and then we had some email contact, and I was sorry not to be able to send him the essay bundle since that was mainly in Dutch. But having translated my chapter into English and having expanded it with the information from Hankins’ biography, although it was still in a very unfinished state I decided to send that to him, to see what he would think of it. He reacted more positively than I would have dared to hope for; Mr. Crowe, thank you very much for your very supportive comments!

Mr. Crowe then wrote a letter of recommendation to Mr. Hankins, who emailed me that he had read the essay, which still was in that very unfinished state, with

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<sup>6</sup> [Graves, 1882, p. 29]

interest. For this kindness I am extremely grateful, especially since it is from his biography that I question some conclusions. But whereas Mr. Hankins described the many sides of Hamilton's life, I discuss only one, his personal life.

In 1981 Mr. Crowe wrote about Mr. Hankins' biography:<sup>7</sup> "future scholars will derive significant benefit from the care with which he has documented his statements" and of course, I could not agree more. And as well as Mr. Hankins "was more accepting of Graves's statements" regarding Hamilton's personal life, as he wrote in the email, I accepted Mr. Hankins' view on Hamilton's work, and on the political and philosophical sides of Hamilton's life.

Since Mr. Hankins read much of what Hamilton wrote and which is still existent, he would have been able to judge me wrong regarding my views on Hamilton's personal life, having perhaps read letters or notes from which it would be obvious that Hamilton regretted marrying Helen Bayly, or really was drunk all the time. But much to my excitement, in his email Mr. Hankins also wrote "You may well be right" which means that, although he perhaps does not agree with all my statements, they have not already been proven wrong by letters or notebooks he read. That was the 'final verdict' I had hoped for.

Anne van Weerden  
Utrecht, 2015

## Post post scriptum

During the last months I made many corrections to this essay. Not that it will be perfect now, but at least some errors have been corrected. To my horror, it appeared that I had mistreated the L<sup>A</sup>T<sub>E</sub>X dictionary; adding British spelling to the American version accidentally led to also adding misspellings. Furthermore, due to writing so much, looking up very many words in especially the *Oxford Dictionary*<sup>8</sup> and trying on the internet whether combinations of words were grammatically acceptable or just sounded fine in my head alone, my English improved. Reading it all over, I was amazed how many flaws one essay can contain.

Anne van Weerden  
Utrecht, 2017

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<sup>7</sup> Crowe, M.J. (1981), Hamilton. *Science*, 212 (4496): 778-779.

<sup>8</sup> *Oxford Living Dictionaries*, <https://en.oxforddictionaries.com>.

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# Chapter 1

## Introduction

*Last night [...] I had a delicious solitary walk beside [the river and the lake] in the moonlight; which was too strong and too near the full for astronomy, but not for poetry. Indeed one spot, where trees on a hillside shut in and overarched a space, the moonlight showing overhead a roof of tender yellowish-green, while the unseen river was heard to murmur lower down, appeared to me so lovely, and so strange, that for an instant I fancied myself removed to some new universe, and was distinctly conscious of proposing for a moment the question, resolved of course at once in the affirmative, but passing, as a question, through my mind, Whether the moral laws of the old world held also here?*

— Sir William Rowan Hamilton

### 1.1 A life-changing discovery

On the 16<sup>th</sup> of October 1843, while searching for an extension of the system of complex numbers, Sir William Rowan Hamilton (1805-1865) found the quaternions. In 1835 he had published what he called a ‘Theory of Couplets’, in which he represented complex numbers, usually written as  $a + ib$ , by ordered pairs of real numbers, or couplets,  $(a, b)$ . Complex numbers can be interpreted geometrically in two dimensions, and an extension to three dimensions was expected to consist of triplets. Around that time many people were looking for such a ‘triple algebra’, but in his ‘flash of genius’ on that October day Hamilton saw that triplets could not satisfy the conditions for an extension while quadruplets could, and he called these four-terms ‘quaternions’.<sup>1</sup>

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Ellipses are indicative of words or sentences omitted by Hamilton’s main biographers Graves and Hankins. Skipped words or sentences from quoted texts in this essay are indicated by ellipses in square brackets; also additions to the texts and remarks are given in square brackets.

The quote can be found on [Graves, 1885, pp. 629-630], see also p. 285.

<sup>1</sup> For a reference to the ‘Theory of Couplets’ see footnote 32 on p. 14. Hamilton’s discovery of the quaternions will be discussed briefly on pp. 12-16.

Before finding the quaternions Hamilton had already provided such fundamental contributions to mathematics and physics that he had been knighted for his work<sup>2</sup> and his name, for example in the form of the ‘Hamiltonian’ which represents the total amount of energy of a physical system, is still used on a daily basis.

## Two books on quaternions

Between the discovery in 1843 and his death in 1865 Hamilton wrote two books about quaternions. The first book, *Lectures on Quaternions*, took him five years to write; it was published in 1853 and was regarded as very difficult. In 1859 Hamilton received a complimentary “cry of distress” from John Herschel (1792-1871) who had, in 1853, said about the *Lectures* that “there is work for a twelvemonth to any man to read such a book, and for half a lifetime to digest it.” He now proposed to write a book which would include “examples of the treatment of problems and theorems by it.” Hamilton took this advice to heart and decided to write a manual, with examples, but the book eventually became about as large as the first one and was also seen as very difficult.<sup>3</sup>

Remarkably though, reading this book, *Elements of Quaternions*,<sup>4</sup> in this day and age, where vector analysis with its methods and operators is in the standard curriculum of mathematics and physics, a few small parts look familiar already, especially where Hamilton uses ‘quaternionic’ vectors, quaternions of which the real part is zero making them resemble ‘ordinary’ vectors, to describe orbits of comets &c. But realizing that his contemporaries had no knowledge of vector analysis, also these parts must have been difficult.

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<sup>2</sup> Hamilton did not know beforehand that he would be knighted. Graves, his main biographer, gives an account from Mr. Ticknor (1791-1871), an “accomplished American author” who was present: “August 15 [1835]. [...] In the evening a grand dinner was given by the Provost and Senior Fellows of Trinity College to the Lord Lieutenant and about three hundred of the Members of the [British] Association. [...] We assembled in the imposing hall of Trinity Library, two hundred and eighty feet long, at six o’clock. ... When the company was principally assembled, I observed a little stir near the place where I stood, which nobody could explain, and which, in fact, was not comprehended by more than two or three persons present. In a moment, however, I perceived myself standing near the Lord Lieutenant and his suite, in front of whom a space had been cleared, and by whom was Professor Hamilton, looking very much embarrassed. The Lord Lieutenant then called him by name, and he stepped into the vacant space. “I am,” said his Excellency, “about to exercise a prerogative of royalty, and it gives me great pleasure to do it [...]. But, in exercising it, Professor Hamilton, I do not confer a distinction. I but set the royal, and, therefore, the national mark on a distinction already acquired by your genius and labours.” [...] Then, receiving the State sword from one of his attendants, he said, “Kneel down, Professor Hamilton;” and laying the blade gracefully and gently first on one shoulder, and then on the other, he said, “Rise up, Sir William Rowan Hamilton.” The Knight rose, and the Lord Lieutenant then went up, and with an appearance of great tact in his manner, shook hands with him. No reply was made. [...] I was afterwards told that this was the first instance in which a person had been knighted by a Lord Lieutenant either for scientific or literary merit.” [Graves, 1885, pp. 157-158].

<sup>3</sup> [Hamilton, 1853], [Graves, 1885, p. 682], [Graves, 1889, p. 121]. Graves writes: “He thought that a volume of 400 pages would suffice for a work which 700 did not bring to its completion, and he hoped to publish within two years what occupied him to the day of his death.” [Graves, 1889, p. 97].

<sup>4</sup> [Hamilton, 1866]. It was William Edwin, Hamilton’s eldest son, who published “the work as I found it, adding merely proof sheets, partially corrected by my late father and from which I removed a few typographical errors, and editing only in the literal sense of giving forth. [...] The writing of the *Elements* had cost him labour both mental and mechanical; as, besides a mass of subsidiary and unprinted calculations, he wrote out all the manuscript, and corrected the proof sheets, without assistance.” [Hamilton, 1866, pp. v-vi].

### 1.1.1 Quaternions and vector analysis

Between 1880 and 1890 vector analysis emerged from the quaternions, but then a ‘battle’ arose between the proponents of the quaternion system and those of vector analysis.<sup>5</sup> The Quaternionists praised the quaternions for being a complete system; the quaternion system has a unique divisor while the vectorial system has not. But the Vector Analysts saw no use for the quaternions as a concept; from the operators of the quaternion system the vector and scalar product were certainly needed, but the combination of them, the quaternion product, was not. Furthermore, Hamilton and his ‘student’, professor Peter Guthrie Tait (1831-1901), had developed a variety of other quaternion operators, for instance the nabla or del operator, but however important these operators were, and are, in science, the quaternions from which they were derived are not at all necessary to use them.

Around the turn of the century it was clear that the Vector Analysts had ‘won’ the battle, and quaternions started to disappear. Although around the 1920s the quaternion system actually became fundamental in quantum mechanics, describing rotations of spin half particles, they were not named there, and at subjects where vector analysis could be used the quaternions became to be regarded as useless.

#### The quaternion revival

In 1948 Dirk J. Struik mentioned how the theory of hypercomplex numbers eventually put the quaternions in their legitimate place as the simplest associative number system of more than two units, and that the theory of groups established the merits of each method, the quaternion system and vector analysis, in its own field of operation.<sup>6</sup> After 1967, when Michael J. Crowe showed how vector analysis directly stems from the quaternions, the opposite opinions about quaternions and vector analysis started to converge, and from the 1970s onward the quaternions, having a number of important advantages over matrices while performing rotations, slowly re-emerged.

Without trying to be even remotely complete: quaternions were used in the Space Shuttle program in the 1970s, in computer graphics in the 1980s and in video games and films in the 1990s, providing smoother camera movements while taking less computing power than rotation matrices. Quaternions are now used, for instance, for balancing walking humanoid robots and stabilizing satellites, and Quaternionic Julia or Mandelbrot sets generate amazing fractal movies.

This superiority of quaternions over matrices would not have surprised their fierce defenders from the late nineteenth century, yet they could never even have imagined the fields of robotics, gaming, satellite control, &c., the quaternions would play such an important role in.<sup>7</sup> And although this is perhaps not entirely the place for them Hamilton had hoped for, believing that they belonged at the very heart of physics, for a long time no one had expected they would ever become so important

<sup>5</sup> For an “engaging and penetrating historical study” of the emergence of vector analysis from the quaternions and the subsequent battle, see M.J. Crowe, *A History of Vector Analysis : The Evolution of the Idea of a Vectorial System*. [Crowe, 1994, reprint from 1967 and 1985].

<sup>6</sup> See p. 172 of Struik, D.J. (1967), *A Concise History of Mathematics*. New York: Dover Publications, Inc. Reprint from 1948.

<sup>7</sup> Fantasizing about robots, as people seem to have done since ancient times, is not the same as having an understanding of the field of robotics as it is developing now.

as they are now. But reading, in his main biographies, who Hamilton was, it is rather easy to imagine that instead of fighting vector analysis he would have welcomed it as a spin-off of his quaternions; he had an open mind and was not afraid of trying new methods.<sup>8</sup>

In 1852 Hamilton wrote about the quaternions: “they constitute a new and powerful calculus for the solution of geometrical, and, therefore, also of physical problems.” And there he was certainly right; although not the quaternion system itself is at the heart of physics, its coordinate free, non-commutative properties, something unheard of in his time, its methods and operators, which he described almost completely in his books, are. It can easily be said that Hamilton was just far ahead of his time.<sup>9</sup>

## 1.2 Biographies and sketches

But after the Quaternionists had ‘lost the battle’ with the Vector Analysts and the quaternions became to be regarded as superfluous, Hamilton came to be seen as having thrown away a large part of his life, working on them. Perhaps as a result of that also the opinion about Hamilton’s personal life became more negative, leading to the short biographical sketches which are now scattered around the web.

These biographical sketches describe him, born at midnight between the 3<sup>rd</sup> and 4<sup>th</sup> of August 1805 in Dublin, Ireland, as a child prodigy. Hamilton’s father recognized his extraordinary intellect and sent him, before he was three years of age, to his uncle James to be educated. But unfortunately, due to some early lost love Hamilton chose the wrong wife, and consequently had a bad marriage with some not at all brilliant local lass living across the fields, who was constantly ill and away from home for extended periods.

Since he was also never able to overcome his lost love he was a very sad man, having problems with alcohol which led to his early demise, the alcohol abuse probably due to his unhappy marriage. Or to the lost love. Or both.

### Hamilton’s main biographies

With the revival of the quaternions also the usefulness of Hamilton’s work on them was revalued, and now it is perhaps time to also re-evaluate Hamilton’s personal life. Even without reading the original letters and notebooks which are kept in the Trinity College Library in Dublin, it is possible to gain a rather good insight into Hamilton’s personal life through his two main biographies; together they give a very detailed account of Hamilton’s life.

The first and enormous biography, taking up more than two thousand pages, was written by Robert Perceval Graves (1810-1893), a clergyman who had known Hamilton personally. It took Graves more than twenty years to write; the three volumes it consists of were published in 1882, 1885 and 1889, and it earned him, absolutely deservedly, an honorary doctorate by Trinity College Dublin. The biography mainly consists of Hamilton’s correspondence with friends and family, commented on by

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<sup>8</sup> See for instance p. 244. Hankins shows this using mathematical arguments. [Hankins, 1980, p. 321].

<sup>9</sup> [Graves, 1889, p. 325], p. 340

Graves. It is now scanned and placed on the internet, open access and in searchable files, making it easy to scan through them while searching for catchwords. Graves made it possible, by publishing large parts of the correspondence, to almost hear Hamilton speak.<sup>10</sup>

The other main biographer is Thomas Leroy Hankins, who published a biography in 1980 and read large parts of Hamilton's correspondence and notebooks. He used material from the Trinity College Library, complemented with correspondence from outside the Library, which was made possible by descendants of Hamilton's daughter. Graves had also read these letters, which could be seen by the "ubiquity of his blue pen" as Hankins writes, but having borrowed letters from friends and relatives of Hamilton, Graves had returned them afterwards.<sup>11</sup> Hankins' biography, which took him an impressive ten years to write, is shorter than that of Graves, yet in some ways more complete since Graves left out several circumstances in Hamilton's life which he presumably thought would not look well in the eyes of their contemporaries; while writing the biography in the 1880s, people who were named by him, or members of their direct families, were still alive.

Hankins reveals these omitted circumstances and fills in gaps Graves only hinted at, especially about the 'lost love', a woman Hamilton fell deeply in love with at a

<sup>10</sup> About Hamilton and speaking Graves writes: "A fact which must remain in the memory of all who knew him, [was] that Hamilton had two voices – one deep, rich, sonorous, rhythmical, and solemn, which flowed forth when he delivered a prelection or a speech, or recited poetry; the other soaring acutely into high regions, when he burst into an explanation, or gave vent to some ebullition of good spirits or cheerful comment." [Graves, 1882, p. 166]. Hamilton also had double vision except when reading, although he did not squint, [Graves, 1889, pp. 180-181], and he was completely used to it. But in June 1864, about a year before his death, he wrote to Clement Mansfeld Ingleby (1823-1886): "although I habitually see a double universe, yet a marked improvement has taken place within the last few weeks, in my power of seeing single. This I attribute to my having lately, for the first time in my life, bought a stereoscope, and used it at leisure here [...]. A friend, within a few minutes' walk of me, has long had a stereoscope apparatus; but years elapsed before I could catch the effect at all. With each eye, separately, I saw a good relief; but it was at Cheltenham, in 1856, that I first was able to see that tertium quid, which is the true result of the stereoscope: and certainly it greatly astonished me. The illusion was wonderful; but I cannot yet feel that it throws much light on my own ordinary process of vision [...]. I am quite sure that I see distance with each eye separately; and although the two focal lengths are not exactly equal, the universe seen with the one eye differs in no appreciable degree from that perceived with the other. [...] As to how far off any given object of vision is, I admit that my estimate is very vague: or rather, I make habitually no such estimate at all, as referred to feet, yards, or miles. I only judge, or rather see, as above said, that one object is nearer than another; and this often with an extreme variety, as in the case (for instance) of a landscape." [Graves, 1889, p. 179]. A month later he wrote in a letter to his friend Augustus De Morgan (1806-1871), with whom he corresponded from 1841 until his death: "Do you find yourself (naturally and irresistibly) believing that you see the very trees (or houses) themselves, at which you look? Such I observe to be my natural impression, even now, when I cover either eye with a hand; but it is otherwise when I look with both. A 'Natural Realist' (vide Sir. W.H.) [(1788-1856), Hamilton's Edinburgh namesake] might ask me, "Will you not believe your eyes?" to whom my answer would be: "Certainly not." One eye at a time I catch myself involuntarily believing, whatever theories I may have read or formed; but I can't believe both at once, because they contradict each other. I see, at this moment, two young haycocks where I know that there is only one; and (in my present mood) it is no satisfaction to me to be informed, from books, that this is because there are two retinal images (not haycocks themselves) and that the two optic axes do not converge." [Graves, 1889, p. 612]. De Morgan replied that "when he was in preparation" his mother had been in contact with someone with ophthalmia, due to which he had only one working eye. He made a drawing of his different-sized eyelids; they had only seen each other once, around 1830, see footnote 57 on p. 357, thus about ten years before they started their correspondence.

<sup>11</sup> [Hankins, 1980, p. xxi]

very young age but who was promised already to someone else. He further discusses Hamilton's main discoveries in mathematics and mathematical physics and gives a very clear account of the religious, political and social turmoil of Ireland in those days, the way it affected Hamilton and how he reacted to it.

### 1.3 An apparently unhappy marriage

William Rowan Hamilton and Helen Maria Bayly (1804-1869) married in April 1833. But neither Graves nor Hankins is very positive about this marriage. Hankins states that it cannot be said "that the Hamiltons had a happy home life. Lady Hamilton's constant illness, her timidity, and her anxiety, combined with Hamilton's dependence on alcohol, must have aggravated the stresses that are part of any household." He is of the opinion that Hamilton "was too much beset with what might have been for him ever to find happiness in what he had. [...] Much of his life had been a disappointment [...]. If he had not chosen Helen Bayly he would have married someone equally sensitive and delicate."<sup>12</sup>

Graves believes that if Hamilton had persisted courting Ellen de Vere (ca 1810-1889) he could have married her instead of Helen Bayly,<sup>13</sup> and that she would have given him a fuller life. Graves openly blames Lady Hamilton, or rather her illnesses, her lack of strength and the degradation of the household after 1842,<sup>14</sup> for Hamilton's, as Graves saw it, "craving for alcoholic stimulants," his extremely untidy study and his irregular habits, together apparently having led to an untimely death due to lack of a healthy lifestyle. And although he does not actually say anything bad about her, Graves does set the stage for her later over-simplified image; by calling, on the very first page of the second volume of the biography, the marriage "this crisis of his life" he plants the seeds for the widespread idea that Hamilton only married Helen Bayly because he could not marry someone else, and that he thus had an unhappy marriage.

To the description of the "pleasing ladylike appearance" which she apparently had, Graves adds that Miss Bayly had "no striking beauty of face" or "force of intellect."<sup>15</sup> He further suggests that Hamilton's warm feelings for her arose when she

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<sup>12</sup> [Hankins, 1980, p. 384]

<sup>13</sup> Helen Bayly was called Mrs. Hamilton after the marriage, and Lady Hamilton after the knighting. For the estimation of Ellen de Vere's birth year see footnote 28 on p. 103.

<sup>14</sup> See p. 115, [Graves, 1885, p. 334]. Before the wedding Lady Hamilton had had lessons in housekeeping from her mother, [Hankins, 1980, p. 119], but where managing the household actually meant being a good employer, keeping an upper hand will have been no easy task for her, being frequently ill. According to Mrs. Phoebe Alice O'Regan (1887-1984), the wife of Hamilton's grandson John O'Regan (1870-1922), Lady Hamilton once wrote a letter to her husband "complaining bitterly about the amount of trouble the servants of Mr. De Vere gave to her servants whenever they came, so it may not have been very easy to deal with the household, the eminent guests, their servants, *and* her genius of a husband. It was common knowledge that if he was immersed in a calculation he would sit up all night till he had solved it." [Wayman, 1987, p. 303].

<sup>15</sup> [Graves, 1885, p. 2]. Neither Hamilton nor his sisters were "strikingly beautiful" as can be read in [De Vere, 1897, p. 40] and [Wordsworth, 1979, p. 117]; Graves just seems to mention this as a foreboding of doom, as if nothing bad would have happened if only she would have been more beautiful and more intelligent. For a different view on the cause of Hamilton's lack of a healthy lifestyle see chapter 9, for how extremely negative Graves actually was about Lady Hamilton see p. 483, and for if it was really all that bad see chapters 10 and 11. Having had a great "force of intellect" would perhaps not have made her very happy, see footnote 44 on p. 175; apart from a few exceptions, see



was seriously ill, and that his anxiousness for her recovery, “coming at a time when he had felt obliged to suppress his former passion, prepared the way for tenderer and warmer feelings,” thus vaguely suggesting that without her being ill at precisely the right time Hamilton never would have felt so much for her.

The finishing touch comes with the description of her two long-lasting illnesses which were diagnosed as being “of a nervous character”. Even if the doctors had good reasons to give this diagnosis, Graves does not try in any way to nuance the impression which arises from it; he allows for the suggestion that this marriage must have been a burden for Hamilton, who unfortunately chose the wrong woman.<sup>16</sup>

### An insidious habit

Suffering from the first of her two “illnesses of a nervous character”, which lasted from spring 1840 until the first weeks of 1842, Lady Hamilton did not live at the Observatory. She first lived in Dublin, came back to the Observatory in August 1840 to give birth to their youngest child, then she lived for some months with a neighbouring sister, and from early 1841 until the beginning of 1842 with another sister in England while Hamilton and the children stayed at the Observatory.<sup>17</sup>

Then, on pages with the page heading: “Relaxation of Domestic Order”, Graves writes that after she returned, no matter how happy Hamilton was that she was at home again and how well she was now, it did not return to her “the faculty of domestic administration.” He states that this was “deeply and permanently injurious to Hamilton. He had now no regular times for his meals [...];<sup>18</sup> and the fire and hot coffee, which in his earlier experience used to await him at night, when in the small hours he desisted from the work of observing, were succeeded by a provision of porter.” In Graves’ eyes, this was the main cause that, even though “the danger was long unfelt and unrecognised,” from 1842 on “the insidious habit gradually gained firmer possession, and produced that relentless craving which in a few years from this time exercised over him an occasional mastery; by which he must himself have felt humiliated, and which his friends could not but notice with a deep sadness.”<sup>19</sup>

With this so called “insidious habit”, Graves hints at Hamilton’s drinking, apparently for the first time in his life, alcohol at home instead of mainly at dinners, thus in company. And while Hamilton did not see the problem of drinking alcohol, Graves writes about him as a “sufferer with scarcely any disturbing consciousness of the

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p. 335, the only fields a woman could excel in were literature and poetry and the like. But she does not seem to have been very poetic or literary; according to Hankins her letters to Hamilton were scarce and short. Still, Hamilton mentioned spirituality as one of her characteristics, see p. 132, and she did read books; she read the Bible, see p. 199, and Chaucer, see p. 150, she read aloud to their children, see p. 306, she read poetry and knew about the “old Poets”, see p. 141, she had read Hamilton’s poems and those of his sister Eliza and had a clear opinion about them, see p. 154. It is not known how intelligent she actually was; Hamilton once tried unsuccessfully to explain Optics to her, see p. 141, but she surely will have been interested in his work, see p. 152, and, sometimes, she came to his ‘try-out’ lectures at the Observatory.

<sup>16</sup> [Graves, 1889, p. 51]. With the “former passion” Graves alludes to Ellen de Vere, see chapter 4.

<sup>17</sup> Leaving her children for such a long time might seem neglectful but in those times, when psychology did not yet exist as the science it is now, children’s psychological development was poorly understood and male doctors found treating women extremely difficult, mothers were, at doctor’s prescriptions, more often taken away from their families to get better, see p. 207.

<sup>18</sup> For a very different interpretation see section 9.1 on p. 328, and p. 494.

<sup>19</sup> [Graves, 1885, pp. 334-335], [Graves, 1885, pp. 505-506]

evil it involved;" the "insidious habit" being "the one shadow upon the brightness of Hamilton's life and character."<sup>20</sup> Writing the biography after Hamilton's death, when Graves hints at Hamilton's "infirmity", it is always accompanied by a brooding, foreboding atmosphere.

But Graves does not seem to realize how he just makes matters worse by laying these veils of darkness over the biography, warning his readers for doom to come. He apparently hopes that reading further they will realize that Hamilton's "insidious habit" was the only weakness of his morally almost perfect friend who was "aiming at every virtue and thinking none but high thoughts." He tries to show, exhaustively, how nothing in Hamilton's life ever indicated any deterioration of mind, but while doing that he almost completely ignores what Hamilton, in possession of this mind, thought himself of his drinking habits, and of his marriage for that matter, therewith reducing Hamilton to a beautiful but unworldly and socially almost helpless man.<sup>21</sup> Thereby also failing to recognize Hamilton as someone who knew his boundaries and was able to change his behaviour if he thought that was necessary,<sup>22</sup> Graves makes it possible for his readers to look upon Hamilton as an even more general "sufferer", who hardly had any controlling influence on his habits or on his life, thus making his alcoholic image in the gossips perfectly feasible.

And Graves is so certain of his idea that if only Lady Hamilton had been able to maintain a stronger grip on Hamilton's habits nothing "humiliating" would have happened, that he concludes his contemplations about her shortcomings and how that influenced Hamilton with the remark that after she came home again, "no one ever needed a capable wife more than Hamilton, and this blessing he now ceased to possess. Though he remained to the end of his life an attached husband, just as Lady Hamilton remained an attached wife, as well as a good woman, yet from this time her power of influencing him and regulating his habits ceased to operate; that power probably never had been great, but now it had entirely passed away." To which he adds that he believes that, although it was "scarcely noted at first," he "correctly dated the coming on of the "obscurtion" and assigned its originating cause."<sup>23</sup>

### 1.3.1 A peaceful walk

Yet, the dark view on this marriage as having been an unhappy one, or even a burden for Hamilton, does not seem to fit in with his recollection of how he found the quaternions, described in a letter to his son Archibald on the 5<sup>th</sup> of August 1865 while "the hand which penned it was at the time tremulous with approaching death."

"My Dear Archibald – (1) I had been wishing for an occasion of corresponding a little with you on Quaternions: and such now presents itself, by your mentioning in your note of yesterday, received this morning, that you "have been reflecting on several points connected with them" (the quaternions), "particularly on the Multiplication of Vectors."

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<sup>20</sup> [Graves, 1885, p. 632], [Graves, 1885, p. 505]

<sup>21</sup> See p. 432, p. 415, p. 474, p. 490.

<sup>22</sup> Something he could and did, see for instance section 4.3 on p. 118, p. 416 and p. 421.

<sup>23</sup> [Graves, 1885, p. 335]. That is, the "Relaxation of Domestic Order". For how this "obscurtion" can be interpreted very differently, see for instance p. 345 and p. 485. For the apparent improbability of regulating Hamilton's habits see chapter 9.

“(2) No more important, or indeed fundamental question, in the whole Theory of Quaternions, can be proposed than that which thus inquires What is such Multiplication? What are its Rules, its Objects, its Results? What Analogies exist between it and other Operations, which have received the same general Name? And finally, what is (if any) its Utility?”

“(3) If I may be allowed to speak of myself in connexion with the subject, I might do so in a way which would bring you in, by referring to an ante-quaternionic time, when you were a mere child but had caught from me the conception of a Vector, as represented by a Triplet: and indeed I happen to be able to put the finger of memory upon the year and month – October, 1843 – when having recently returned from visits to Cork and Parsonstown, connected with a Meeting of the British Association,<sup>24</sup> the desire to discover the laws of the multiplication referred to regained with me a certain strength and earnestness, which had for years been dormant, but was then on the point of being gratified, and was occasionally talked of with you. Every morning in the early part of the above-cited month, on my coming down to breakfast, your (then) little brother William Edwin, and yourself, used to ask me, “Well, Papa, can you multiply triplets?” Whereto I was always obliged to reply, with a sad shake of the head: “No, I can only add and subtract them.”

“(4) But on the 16th day of the same month – which happened to be a Monday, and a Council day of the Royal Irish Academy – I was walking in to attend and preside, and your mother was walking with me, along the Royal Canal, to which she had perhaps driven; and although she talked with me now and then, yet an undercurrent of thought was going on in my mind, which gave at last a result, whereof it is not too much to say that I felt at once the importance. An electric circuit seemed to close; and a spark flashed forth, the herald (as I foresaw, immediately) of many long years to come of definitely directed thought and work, by myself if spared, and at all events on the part of others, if I should even be allowed to live long enough distinctly to communicate the discovery. Nor could I resist the impulse – unphilosophical as it may have been – to cut with a knife on a stone of Brougham Bridge, as we passed it, the fundamental formula with the symbols,  $i, j, k$ ; namely,  $i^2 = j^2 = k^2 = ijk = -1$ , which contains the Solution of the Problem, but of course, as an inscription, has long since mouldered away. A more durable notice remains, however, on the Council Books of the Academy for that day (October 16th, 1843), which records the fact, that I then asked for and obtained leave to read a Paper on Quaternions, at the First General Meeting of the Session: which reading took place accordingly, on Monday the 13th of the November following.

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<sup>24</sup> In November 1831 Hamilton became a member of the British Association for the Advancement of Science, in this essay called the British Association for short, which was founded in 1831; it was the precursor to the contemporary British Science Association. A brief history, and reasons for its foundation, can be found at their website, [www.britishsociety.org/history](http://www.britishsociety.org/history) [Accessed 23 Nov 2015]. According to Graves, in October 1831 Hamilton had received from the Rev. W. Vernon Harcourt (1789-1871), “one of the founders” of the British Association, “a request that he would become a member of the Sub-Committee for promoting Mathematical and Physical Science at the meeting to be held in June, 1832, at Oxford, and that he would consent to be, meanwhile, a member of Local Committee in Dublin and its Corresponding Secretary.” Hamilton consented to the requests “with the exception of that asking him to be Corresponding Secretary, an office which was undertaken by Professor Humphrey Lloyd [(1800-1881)]. The Annual Meetings of the British Association became from henceforth marking events in his life.” [Graves, 1882, p. 483].

“With this quaternion of paragraphs I close this letter I.; but hope to follow it up very shortly with another. Your affectionate Father, William Rowan Hamilton.”<sup>25</sup>

Also, on the 15<sup>th</sup> of October 1858 Hamilton wrote to Tait: “To-morrow will be the fifteenth birthday of the Quaternions. They started into life, or light, full grown, on Monday the 16th of October 1843, as I was walking with Lady Hamilton to Dublin, and came up to Brougham Bridge, which my boys have since called the Quaternion Bridge. That is to say, I then and there felt the galvanic circuit of thought close; and the sparks which fell from it were the fundamental equations between  $i, j, k$ ; exactly such as I have used them ever since. I pulled out, on the spot, a pocket-book, which still exists, and made an entry, on which, at the very moment, I felt that it might be worth my while to expend the labour of at least ten (or it might be fifteen) years to come. But then, it is fair to say that this was because I felt a problem to have been at that moment solved – an intellectual want relieved – which had haunted me for at least fifteen years before.”<sup>26</sup>

“Less than an hour elapsed, before I had asked and obtained leave, of the Council of the Royal Irish Academy, of which Society I was, at that time, the President – to read at the next general Meeting a Paper on Quaternions; which I accordingly did, on November 13, 1843.

“Some of those early communications of mine to the Academy may still have some interest for a person like you, who has since so well studied my Volume, which was not published for ten years afterwards.

“In the meantime, will you not do honour to the birthday, to-morrow, in an extra cup of – ink? for it may be obsolete now to propose XXX, – or even XYZ.”<sup>27</sup>

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<sup>25</sup> [Graves, 1885, p. 433-435]

<sup>26</sup> Writing in the letter to Archibald that “the desire to discover the laws of the multiplication referred to regained with me a certain strength and earnestness, which had for years been dormant,” while in the letter to Tait he wrote: “I felt a problem to have been at that moment solved – an intellectual want relieved – which had haunted me for at least fifteen years before,” is one of the examples of how Hamilton could, very honestly, tell stories about the same event in different ways, often romanticizing them, dependent as it seems to whom he wrote the letter, see for instance p. 297 and p. 298. Of course, it cannot be known which version is more ‘real’, but it must be noted that during those fifteen years Hamilton also did the work on Dynamics he was knighted for; what he did exactly in those years can be found in Hankins’ biography. In the meantime, according to Hankins, “Hamilton searched off and on for the elusive triplets,” [Hankins, 1980, p. 283], and combining this with Hankins’ remark that “true to character, Hamilton was unable to write about anything that was not foremost in his mind,” [Hankins, 1980, p. 173], this can be an indication that Hamilton was really absorbed in his other studies; the “haunting” thus came in bits and pieces, placing the ‘real’ story somewhere in between.

<sup>27</sup> [Tait, 1866, p. 31]. Hamilton used to drink porter, and perhaps due to Hamilton’s joke Alexander Macfarlane (1851-1913) assumed it to be “that beverage for which Dublin is famous – porter labelled X<sup>3</sup>,” [Macfarlane, 1916, p. 46]. Indeed, XXX porter was a Dublin Stout, see for instance *Irish Breweries : styles - history - beers*, [www.europeanbeerguide.net/irlbrew.htm](http://www.europeanbeerguide.net/irlbrew.htm) [Accessed 03 Apr 2015]. But during his lifetime the perspective on drinking alcohol changed, see p. 431, which was perhaps the reason Hamilton mentioned its obsolescence. Or the obsolescence had to do with the Temperance Movement, see p. 433, or with himself, drinking less then than he did in previous years, see p. 424. The obsolescence of XYZ seems even less clear: when describing how Hamilton, visiting his father in 1819, asked to be allowed to stay in Dublin to be able to see the acting of Miss Elizabeth O’Neill (1791-1872), a then very famous actress, Graves writes how she played in *The Stranger*, see also p. 34, and in a footnote he remarks: “Which curiously was followed by the farce of XYZ.” [Graves, 1882, p. 62]. XYZ was an 1810 comedy by George Colman the Younger (1762-1836) in which, apparently, Miss O’Neill played a part. It was published in 1820 as *XYZ : a comedy : in two acts : faithfully marked with the stage business, and stage directions, as it is performed at the Theatre Royal, with unbounded applause*, by George Colman and John O’Keeffe. Dublin: Printed for the

And, lastly, in July 1848 Hamilton wrote in one of his manuscript books that “the pocket-book remains, given me by Helen in 1840, in which, while I was walking to town on the day thus referred to, I did actually pencil at the time, and just as I reached the Bridge here mentioned, the [fundamental equations].”<sup>28</sup>

Hamilton thus explicitly mentioned his wife three times in connection with his discovery of the quaternions: once in the letter written twenty-two years later, only a few weeks before his death, when he wrote, apparently without having noticed where she came from, that she walked with him and was talking to him now and then, once in the letter to Tait, written fifteen years after the discovery, and once five years after the discovery in his manuscript book when he recorded that she gave him the pocketbook in which he wrote down the fundamental equations for the very first time.

Realizing that this discovery was the greatest moment of his life, throughout the years explicitly mentioning his wife and what she did does not sound at all like an unhappy or burdensome marriage. The description, in the letter to Archibald, of the walk along the Royal Canal immediately before the discovery even sounds peaceful, which would indeed be better suited to his Eureka moment, a moment which often comes at a time when people are more relaxed, like Archimedes in his bath. This peacefulness was the onset to the writing of this essay; reading Graves’ biography again, searching specifically for remarks about the marriage and events concerning it, indications for a good marriage were found throughout it.

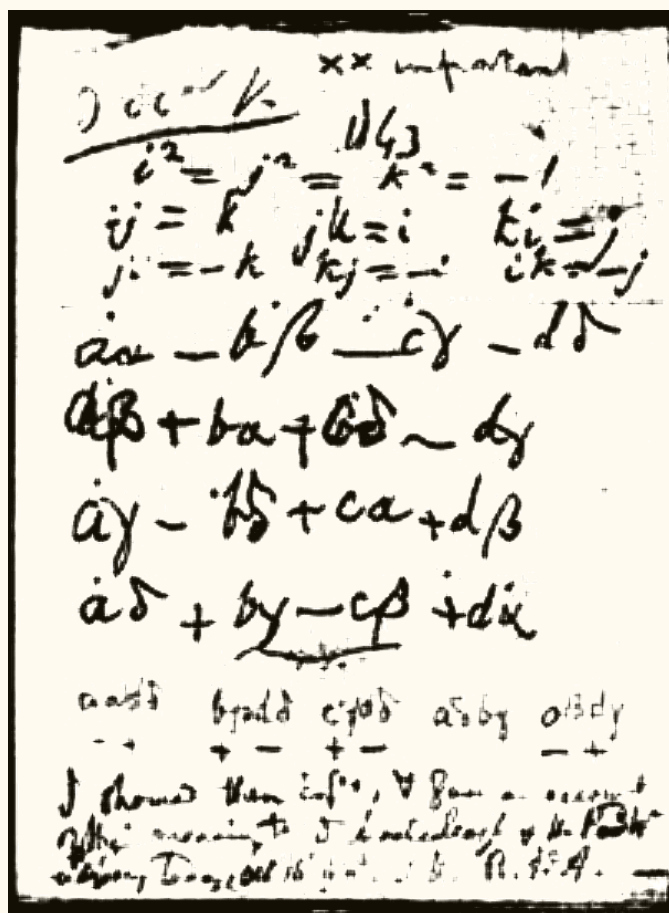
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Booksellers. After Miss O’Neill married in December 1819 she ended her brief and very successful acting career which can also account for the obsolescence. Or Victorian times did not allow for such farces anymore; in any case, Graves seems to wonder why such a fine actress would play in such a comedy. And, of course, it may have been a mathematical joke; the obsolescence of XYZ may have alluded to the fact that when the quaternions are used for geometrical descriptions the XYZ coordinate system is not needed anymore.

<sup>28</sup> [Graves, 1885, p. 437]

## 1.4 Discovery of the quaternions

The following section is written for the interested reader, yet it is not at all necessary for any understanding of the remainder of this essay which does not contain mathematics; it deals mainly with love, romance and poetry, and the overall quiet daily life of a very remarkable mathematician.



This is the page from the pocketbook on which Hamilton wrote down the fundamental equations for quaternion multiplication for the very first time. At the top can be read: “xx important”, and with  $\text{D}$  is Moon-day and  $\text{oc}^{\text{er}}$  is October, the date “Monday October 16 1843”. With  $\text{eq}^{\text{ns}}$  is equations,  $\forall$  is and, and R.I.A. is the abbreviation for the Royal Irish Academy, according to Graves at the bottom of the page is written: “I showed these equations, and gave an account of their meaning to Dr. MacCullagh and the Rev. W Sadleir to-day, October 16, 1843, at the Royal Irish Academy.”<sup>29</sup>

<sup>29</sup> [Graves, 1885, pp. 436-439]. The mathematicians Hamilton showed the equations to were

In the previously mentioned manuscript book Hamilton described, in 1848, the mathematical terms on the pocketbook page; after mentioning that he “actually pencil[ed] at the time, and just as I reached the Bridge here mentioned, the [fundamental equations]” he proceeded: “Then in a jolted handwriting, the same pencilled page contains [the four quadrinomial constituents],<sup>30</sup> which were inserted while I was driving on that (to me memorable) Monday from the neighbourhood of the turnpike to the Academy, as the constituents of the quaternion product of the two quaternion factors,

$$a + ib + jc + kd, \quad \text{and} \quad \alpha + i\beta + j\gamma + k\delta.$$

The dots referred to certain destructions of double products, by additions of positives to negatives, which I was examining on the car, in order to verify a conjecture which I instantly made, namely, that the law of the moduli would be found to hold good: or that the sum of the squares of the four quadrinomial constituents, above copied, would be found equal to the product of the two sums of squares,

$$a^2 + b^2 + c^2 + d^2, \quad \text{and} \quad \alpha^2 + \beta^2 + \gamma^2 + \delta^2.$$

In connexion with such cancelling of terms, I pencilled also as follows; which I think was done while I was sitting in the President’s Chair, at the meeting of Council, on the same  $\mathfrak{D}$ , and seems to relate to the dots already copied in the following way. Taking only single products, the square of the first quadrinomial constituent ( $a\alpha - b\beta - c\gamma - d\delta$ ) gave, as one term,  $-a\alpha d\delta$ , or  $-a\delta\alpha$ ; I therefore wrote  $a\delta\alpha$ , with the sign  $-$  under it, and looked out for an opposite term to balance or destroy this one, which accordingly I found in the square of the fourth quadrinomial constituent, namely,  $a\delta + b\gamma - c\beta + d\alpha$ ; thus I could write a  $+$  after the  $-$ , under the  $a\delta\alpha$  (on a different page of the pocket-book from that which contained the constituents themselves), and had thereby the symbol, or note, above copied:

$$\begin{array}{c} a\delta\alpha \\ - + \end{array}$$

At the same time, or immediately afterwards, I dotted the  $a\alpha$  in the first quadrinomial; and perhaps the  $a\delta$  or the  $d\alpha$  in the fourth. In like manner I obtained, from 1st and 3rd quadrinomials,

$$\begin{array}{c} b\delta\beta; \\ + - \end{array}$$

dotting the  $-b\beta$  in the 1st and the  $-b\delta$  in the 3rd; and writing  $+ -$ , not  $- +$ , under the  $b\delta\beta$ , because in fact the positive sign presented itself here in an earlier product than did the negative sign.”

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James MacCullagh (1809-1847) and William Digby Sadleir (1807-1858), both members of the Committee of Science of the R.I.A..

<sup>30</sup> A quadrinomial expression consists of four parts, and the “quadrinomial constituents” are therefore the four terms of which every quaternion exists, thus also the product of two quaternions, which again has to be a quaternion. See for a very brief description of the emergence of imaginary numbers p. 14, and for quaternion multiplication p. 16.



In a similar way Hamilton described how he obtained the terms

$$\begin{array}{ccccccc} cd\gamma\delta & ac\beta\delta & bc\alpha\delta & ad\beta\gamma & bd\alpha\gamma & ab\gamma\delta & cd\alpha\beta, \\ + - & + - & + - & - + & - + & - + & + - \end{array}$$

but he did not “quite understand according to what rule the dots were placed.”

Hamilton continued in the manuscript book: “Thus 9 products with one set of signs were seen to be cancelled by 9 other products with an opposite set of signs. However, in each of the 4 squares of quadrinomials were 6 ( $= 3 + 2 + 1$ ) products (namely, double ones); making thus 24 ( $= 4 \times 6$ ) (double) products, to be cancelled, 12 by 12 others. But 3 were already known to be cancelled by 3, namely, those which did not involve  $d$  nor  $\delta$ ; whence I inferred that the mutual destruction of the products took place, or that the law of the moduli held good for quaternion multiplication.

“At this stage, then, I felt assured already that quaternions must furnish an interesting and probably an important field of mathematical research: I felt also that they contained the solution of a difficulty, which at intervals had for many years pressed on my own mind, respecting the particularisation or useful application of some general principles, long since perceived by me respecting polyplets, or sets of numbers.”<sup>31</sup>

### Complex numbers and quaternions

In 1545 Girolamo Cardano (1501-1576) published the ‘Cubic Formula’, a formula which can be used to calculate one of the roots of a cubic polynomial, similar to the wider known Quadratic Formula to calculate the roots of a quadratic polynomial. But next to real solutions, with this Cubic Formula solutions were found which contained square roots of negative numbers. It was Rafael Bombelli (1526-1572) who saw that these solutions were real after all; in 1572 he showed as an example that the rather easily guessed real solution of the equation  $x^3 = 15x + 4$  can be calculated as  $x = \sqrt[3]{2 + \sqrt{-121}} + \sqrt[3]{2 - \sqrt{-121}} = (2 + \sqrt{-1}) + (2 - \sqrt{-1}) = 4$ . With  $i^2$  defined as  $-1$ , the complex numbers in this solution,  $2 \pm \sqrt{-121}$  and  $2 \pm \sqrt{-1}$ , can be written as  $2 \pm i11$  and  $2 \pm i$ .

On the 17<sup>th</sup> of October, the day after his discovery, Hamilton wrote to Graves’ eldest brother John Thomas Graves (1806-1870): “A very curious train of mathematical speculation occurred to me yesterday, which I cannot but hope will prove of interest to you. You know that I have long wished, and I believe that you have felt the same desire, to possess a Theory of Triplets, analogous to my published Theory of Couplets, and also to Mr. Warren’s geometrical representation of imaginary quantities.<sup>32</sup> Now I think that I discovered yesterday a theory of quaternions which includes such a theory of triplets. My train of thoughts was of this kind. Since  $\sqrt{-1}$  is in a certain well-known sense, a line perpendicular to the line 1, it seemed natural that

<sup>31</sup> [Graves, 1885, pp. 437-438]. On the photograph of the pocketbook page five of these cancellation terms can be seen under the four quadrinomial constituents of the quaternion product; they were apparently written down while Hamilton was still on the car. They are repeated together with four other terms on the next page in the pocketbook, not shown in this essay.

<sup>32</sup> Warren, J., (1828), *A Treatise on the Geometrical Representation of the Square Roots of Negative Quantities*. Cambridge: Printed by J. Smith. <https://archive.org/details/treatiseongeomet00warrich>. Hamilton, W.R. (1835), On Conjugate Functions, or Algebraic Couples. *Report of the British Association for the Advancement of Science; held in Edinburgh in 1834*, 519-523. <https://archive.org/details/reportofbritisha34brit>.



there should be some other imaginary to express a line perpendicular to both the former; and because the rotation from 1 to this also being doubled conducts to  $-1$ , it also ought to be a square root of negative unity, though not to be confounded with the former.” But what he had discovered the day before was that, in order to ensure that the multiplication of two quaternions is again a quaternion, not one, but two more imaginaries had to be introduced, for both of which it should hold that, just like in the case of  $i$ , their square equalled  $-1$  “if we would conform the multiplication of quaternions to the law of the multiplication of moduli.”<sup>33</sup> He thus discovered a four-dimensional extension of the complex numbers; the quaternions  $a + ib + jc + kd$ .

After Hamilton’s discovery of the quaternions John T. Graves and Arthur Cayley independently discovered the extension of the complex number system to eight dimensions, now called octaves or Cayley numbers respectively. But the quaternions having lost commutativity, in this system also associativity is lost, and in 1898 Adolf Hurwitz (1859-1919) proved that there are no extensions beyond eight dimensions.

### The law of the moduli

As can be seen in his letter, Hamilton was searching for an extension of the system of complex numbers which likewise could be interpreted geometrically, and therefore he wanted his quaternion system to obey the law of the moduli as the system of complex numbers does. The complex number  $z$  and its modulus can be visualized easily: generally writing a complex number as  $z = u + iv$ , and calling  $u$  the real part and  $v$  the imaginary part,  $z$  can be represented by a line stretching from the origin to a point  $(u, v)$  in a plane with two perpendicular axes, one real and one imaginary; the real part of  $z$  being represented by the component along the real axis of length  $u$  and the imaginary part by the component along the imaginary axis of length  $v$ .

The modulus of this complex number  $z$ , written as  $|z|$ , is represented by the length of this line, which can be calculated using Pythagoras’ rule for the triangle:  $|z| = \sqrt{u^2 + v^2}$ . It can also be calculated algebraically using the complex conjugate of a complex number: with the complex conjugate of  $z = u + iv$  defined as  $\bar{z} = u - iv$ , the modulus  $|z|$  is the square root of the multiplication of  $z$  and  $\bar{z}$ :  $|z| = \sqrt{z\bar{z}} = \sqrt{(u + iv)(u - iv)} = \sqrt{u^2 - uiv + ivu - (iv)^2} = \sqrt{u^2 + v^2}$ . For readability now dropping the square roots, in higher dimensions Pythagoras’ rule also holds: in a three-dimensional rectangular prism with length  $a$ , width  $b$  and height  $c$ , the length of the diagonal  $d$  can be found using  $d^2 = a^2 + b^2 + c^2$ . In four dimensions the rule would be  $e^2 = a^2 + b^2 + c^2 + d^2$ , and so on.

The multiplication of two complex numbers, for instance  $z = a + ib$  with squared modulus  $|z|^2 = a^2 + b^2$  and  $\zeta = \alpha + i\beta$  with squared modulus  $|\zeta|^2 = \alpha^2 + \beta^2$ , gives a new complex number  $w = z\zeta = (a\alpha - b\beta) + i(a\beta + b\alpha)$  with squared modulus  $|w|^2 = |z\zeta|^2 = (a\alpha)^2 + (b\beta)^2 + (a\beta)^2 + (b\alpha)^2$ . Being able to be associated with lengths moduli are actually real numbers, and the multiplication of complex numbers obeying the law of the moduli thus means that the modulus of this new complex number must be equal to the multiplication of the two original moduli:  $|z\zeta| = |z||\zeta|$  or  $|z\zeta|^2 = |z|^2|\zeta|^2$ , and therefore  $(a\alpha)^2 + (b\beta)^2 + (a\beta)^2 + (b\alpha)^2$  must be equal to  $(a^2 + b^2)(\alpha^2 + \beta^2)$ , which is indeed true.

<sup>33</sup> [Hamilton, 1844, p. 492]

## Quaternion multiplication

Quaternions containing three imaginary units as Hamilton had discovered, a quaternion  $p$  can be written as  $p = a + ib + jc + kd$ . The multiplication of this quaternion with a quaternion  $q = \alpha + i\beta + j\gamma + k\delta$  gives a new quaternion:  $s = pq = (a + ib + jc + kd)(\alpha + i\beta + j\gamma + k\delta)$ .

With Hamilton's rules for multiplication of the imaginary units  $i, j, k$ , namely  $i^2 = j^2 = k^2 = -1$ , and  $ij = k, jk = i, ki = j, ji = -k, kj = -i, ik = -j$ , writing this all out gives:

$$\begin{aligned} s = pq = & \\ & a\alpha + ai\beta + aj\gamma + ak\delta + ib\alpha + ibi\beta + ibj\gamma + ibk\delta + \\ & jca + jci\beta + jcj\gamma + jck\delta + kd\alpha + kdi\beta + kdj\gamma + kdk\delta = \\ & a\alpha + ai\beta + aj\gamma + ak\delta + ib\alpha - b\beta + kb\gamma - jbd + \\ & jca - kc\beta - c\gamma + ic\delta + kd\alpha + jd\beta - id\gamma - d\delta. \end{aligned}$$

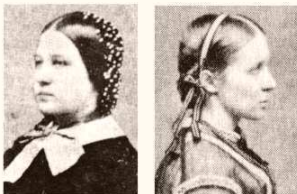
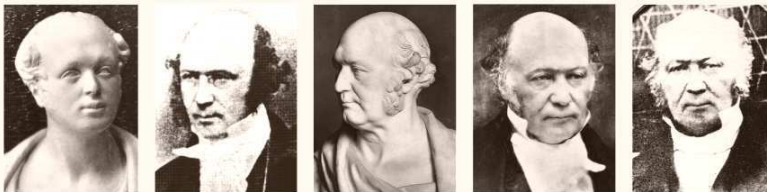
Ordering these terms yields the four four-terms, or quadrinomial constituents, which can be seen in the middle of Hamilton's pocketbook page:

$$\begin{aligned} s = pq = & \\ & (a\alpha - b\beta - c\gamma - d\delta) + \\ & i(a\beta + b\alpha + c\delta - d\gamma) + \\ & j(a\gamma - b\delta + c\alpha + d\beta) + \\ & k(a\delta + b\gamma - c\beta + d\alpha). \end{aligned}$$

Although in itself very straightforward, checking whether quaternion multiplication obeys the law of the moduli means making even longer calculations since the quadrinomial constituents have to be squared. But just as in the case of the complex numbers all imaginary terms appear to end up being each other's negatives, leaving only the real parts as the squared modulus:  $|s|^2 = (a\alpha - b\beta - c\gamma - d\delta)^2 + (a\beta + b\alpha + c\delta - d\gamma)^2 + (a\gamma - b\delta + c\alpha + d\beta)^2 + (a\delta + b\gamma - c\beta + d\alpha)^2 = (a\alpha)^2 + (b\beta)^2 + (c\gamma)^2 + (d\delta)^2 + (a\beta)^2 + (b\alpha)^2 + (c\delta)^2 + (d\gamma)^2 + (a\gamma)^2 + (b\delta)^2 + (c\alpha)^2 + (d\beta)^2 + (a\delta)^2 + (b\gamma)^2 + (c\beta)^2 + (d\alpha)^2$  which is indeed equal to  $(a^2 + b^2 + c^2 + d^2)(\alpha^2 + \beta^2 + \gamma^2 + \delta^2)$ ; the law of the moduli holds for quaternions.

## Mathematics and calculating

In this description the impressiveness of Hamilton's capacity to calculate in his head can be seen; after his discovery he checked whether all imaginary terms really ended up being each other's negatives as required, and these calculations involved quite some terms. That was no problem; performing enormously long calculations without pen and paper was something Hamilton did throughout his life, but calculating was only a minor part of his mathematics which consisted mainly of the search for generalizations in algebra, calculus and geometry. He used calculations to check theorems, such as in this case, or in applied examples, for instance in real situations in physics or astronomy, or just for mathematical fun. But applications were mere side effects for him; his focus was on theoretical mathematics.



## 1.5 The Hamilton family

### The first row, Sir and Lady Hamilton

(1.1) The photographs of Sir and Lady Hamilton are made around 1855. They come from a family album of the O'Regan family, and are taken from a 1987 book about Dunsink Observatory by Patrick A. Wayman. Hamilton's photograph is damaged, but here only the damage in the background is brushed out; restoring his face would need some artistic talents. And while doing so, the background of Lady Hamilton's photograph was also slightly adapted, in order to create some illusion that the Hamiltons were photographed together.

Lady Hamilton appears to have had extremely light blue eyes and her thick dark hair, which Hamilton mentioned in a poem, is clearly recognizable. Seeing her faint smile, in a time when almost everyone was looking rather grave on photographs, she looks like having found being photographed quite a funny business.<sup>34</sup>

### The second row, Hamilton

(2.1) According to Graves, who knew Hamilton personally, this miniature bust, executed in 1833 by Mr. Terence Farrell (1798-1876), has a better likeness than an earlier bust although that was made from a cast of Hamilton's head. Graves therefore "preferred to prefix as frontispiece to [the first volume of the biography] an autotype copy from a cast taken from the model of the [miniature bust]." <sup>35</sup> Hamilton was in his late twenties when this bust was made.

(2.2) The second photograph was taken while one of Hamilton's sons was standing next to him; this part of the photograph is given separately as the first photo on the third row. The photograph is reproduced from Wayman's book where it is assumed to have been made around 1842.<sup>36</sup> But since William Edwin was born in 1834 and Archibald in 1835, and the boy on the photograph seems to be some ten to twelve years old, the photo may have been taken somewhat later, probably between 1844 and 1847, when Hamilton was in his early forties. He seems to wear a monocle.

(2.3) The third photograph shows Hamilton's bust at Trinity Library; Hamilton looks attentive and strong. Being made after photographs, it can be argued that the sculptor made him look better than he actually did, yet Graves' description is clear: "The marble bust in the Library of Trinity College is from the hand of Foley<sup>37</sup> and a photograph from it supplies the frontispiece to the [third] volume [of the biography]. Our eminent sculptor never had the advantage of seeing Sir W. R. Hamilton, and had to work from small photographs and a cast of the anterior half of the head. The aspect which the photograph presents will, however, be acknowledged by all who knew the living man to be both fine and like."<sup>38</sup>

<sup>34</sup> [Wayman, 1987, pp. 64, 65]. For the poem see p. 132.

<sup>35</sup> [Graves, 1882, p. 370]. The photograph of the bust can be seen at <https://archive.org/stream/lifeofsirwilliam01grav#page/n5/mode/2up>.

<sup>36</sup> [Wayman, 1987, p. 63]

<sup>37</sup> Although John Henry Foley (1818-1874) was a very famous Irish sculptor, Hamilton's bust is not mentioned as one of his works. It is therefore more likely that it was made by his elder brother Edward Arlington Foley (1814-1874), who was specialized in portrait busts. See the website *Library Ireland*, [www.libraryireland.com/irishartists/edward-foley.php](http://www.libraryireland.com/irishartists/edward-foley.php) [Accessed 17 Aug 2015].

<sup>38</sup> [Graves, 1889, p. 120]. See for the photograph [Graves, 1889], <https://archive.org/stream/lifeof>

(2.4) The fourth photograph was taken in 1859 while Hamilton's daughter Helen Eliza was standing next to him; her part of the photograph is given separately as the first photo on the fifth row. The part of the photograph showing Hamilton is used in Graves' biography as a frontispiece to the second volume.

According to Graves "this representation of his features stands out from all other photographs of him which I have seen (and I believe I have seen almost all that were taken), as alone doing something like justice to the combined intellectual and moral character of the subject. It exhibits, I think, both in conformation and expression, the profound thinker, the reverent benevolent sage."<sup>39</sup>

Yet Hamilton seems to look sad and tired, and without knowing the circumstances he could be judged to even look alcoholic. The photograph was made while he was travelling, not something very comfortable in those days. He had attended a meeting of the British Association where he had met Peter Guthrie Tait who would later write two books on quaternions, Michael Faraday (1791-1867) and James Clerk Maxwell (1831-1879), but where he had also heard that his friend John Nichol Sr. (1804-1859) had died, and he had been very worried about his daughter who had suffered from an illness which had costed her almost over a year to recover from.

Graves had written about the previous year: "the autumn of [1858] was saddened to him by the dangerous illness of his daughter, then staying with her cousins at Trim. Her illness was of so alarming a character as to oblige him to give up the intention of attending the meeting of the British Association at Leeds, and to summon down to Trim, for repeated consultation, his friend Dr. Stokes<sup>40</sup>, by whose wise treatment the life so precious to her father was, after long struggle and a tedious convalescence, restored to comparative health." Hamilton had stayed in a hotel to be with her, and he had written to his sister Sydney Margaret (1810-1889): "This has, of course, been a very expensive business to me, but at least the child's life appears to have been saved."<sup>41</sup>

But Helen Eliza had still not completely recovered the next year, and in July 1859 Hamilton brought her to family from her mother's side who lived in Rhyl in Wales. In September, on his way to the meeting of the British Association in Aberdeen, he picked her up at Rhyl and brought her to Fulneck,<sup>42</sup> to stay with his "own maternal relations Mr. and Mrs. Joseph Willey."<sup>43</sup> They lived in the Fulneck Moravian Settlement near Leeds, and while Helen Eliza stayed with them Hamilton attended the

[sirwilliam03grav#page/n7/mode/2up](#).

<sup>39</sup> [Graves, 1889, p. 119], [Graves, 1889, p. 120]

<sup>40</sup> That was, most likely, the physician William Stokes (1804-1878), since Hamilton refers to him as an "eminent Dublin physician," [Graves, 1889, p. 332].

<sup>41</sup> [Graves, 1889, pp. 103-104], [Hankins, 1980, p. 368]

<sup>42</sup> Hamilton may have done this with an eye to his finances; in 1864 Hamilton mentioned that the family at Rhyl had asked for a, in any case in Hamilton's eyes, large amount of money for boarding Helen Eliza, see p. 383. But is not known when he learned that the amount they asked for Helen Eliza would be so high, and it is therefore also not certain that lowering the total amount of money really was his reason to take her with him.

<sup>43</sup> Joseph Hutton Willey (1820-1900) was director of the Fulneck School from 1852 until 1879, see *Calverley : Fulneck*, [www.calverley.info/rayner\\_fulneck.htm](http://www.calverley.info/rayner_fulneck.htm) [Accessed 17 July 2015]. He was a son of Hamilton's uncle John Willey (1781-1847), who was "by profession a Moravian minister, but [his] recreation was astronomy," [Graves, 1882, p. 289]. John Willey married, in 1817, Susan Hutton (.. -1858), a sister of Hamilton's mother Sarah Hutton. They lived in Ballinderry near Antrim; after the death of their mother in 1817 Hamilton's sisters Eliza Mary (1807-1851) and Sydney had lived with them in 1818, and Grace (1802-1846) and Eliza in 1819, see p. 35.

meeting of the British Association in Aberdeen which took place during the third week of September 1859. When Hamilton returned to Fulneck to take Helen Eliza, who had finally regained her health, back home again, he stayed for a couple of days to give, at Fulneck School, a lecture on Astronomy to “the youthful pupils of both sexes,” something apparently uncommon in those days.

According to Graves, while still at Fulneck Hamilton also agreed to sit “with his daughter standing at his side, for the photographic likeness from which an autotype reproduction has been placed as a frontispiece to the second volume of this work.”<sup>44</sup> After knowing what had happened in the period before this photograph was taken, Hamilton’s tired expression can be better judged, or understood, making Graves’ remark that the photograph exhibits “the profound thinker, the reverent benevolent sage” comprehensible.

(2.5) The fifth photograph again comes from Wayman<sup>45</sup> who writes: “The last known photograph of Sir William, taken in 1864 or thereabouts. This photograph, from the records of the O’Regan family, is referred to in an extant letter from Helen Eliza Hamilton, before her marriage, to Ann O’Regan, sister of her future husband, the Venerable John O’Regan [(1817-1898)], dated 8 March, 1866.” The photograph is slightly adapted here; a speck on Hamilton’s mouth is removed since it seemed to be an artefact of the photograph. Hamilton is unshaven and looks as if he was taken by surprise, being photographed unexpectedly.

### The third row, William Edwin

(3.1) The first photograph forms a whole with the second photograph of Hamilton on the second row. It is guessed, by the look on the boy’s face but also by the way he holds his head since that seems to be similar to that in the third photograph on this row, that this is William Edwin (1834-1902). The photograph was surmised earlier to have been taken around 1845.

(3.2) The second photograph comes from Hankins, but there is no information about when or where it was taken. Judging from William Edwin’s neat clothes and rather self-assured glance, and also knowing that in later life he seems to have been poor, this photograph can be assumed to have been taken around 1870, when he was in his mid-thirties. He then lived in Marbleton, Canada, and had been teaching there during winter; in a short overview of his life entitled *Peeps at my life*, which he called a “pamphlet”, he wrote: “After my winter’s school-teaching was over, I got a comfortable legacy from across the herring pond, and took things easy while it lasted, making excursions to Ottawa, Halifax and elsewhere.”<sup>46</sup> [...] Every week regularly I sent a poem to the Sherbrooke Gazette, all of which were regularly published till the long-suffering editor kicked at a verse history of a caged moose.

<sup>44</sup> [Graves, 1882, p. 289], [Graves, 1889, pp. 117-120]. Although Graves writes in a footnote that Hamilton had also given lectures to the girls of Mercer’s School in Castleknock, his own parish, the fact that he explicitly mentions that is a strong indication of the uncommonness in those days of lecturing girls in schools.

<sup>45</sup> [Wayman, 1987, p. 90]

<sup>46</sup> [Hankins, 1980, p. 373], [Wayman, 1987, p. 308], [Hamilton Jr, 1895, p. 9]. Lady Hamilton died in June 1869. William Edwin made his “seventh and last trip (from Glasgow to Quebec, in spring of ’72),” [Hamilton Jr, 1895, p. 10], and lived and worked in various places. In October 1880 he finally settled in Chatham, Canada. [Hamilton Jr, 1895, p. 15].



"Now, to the simple rustics, knowing nothing of my legacy, I became a mystery of the first water. The Sherbrooke Gazette must give an enormous price for poetry, when I could live so comfortably and afford to spend two hundred dollars on a fortnight's trip to Halifax.<sup>47</sup> Was I to have the monopoly of these fat things! No. Accordingly, the Gazette became flooded with manuscript from other local poets, which, fattening the waste basket, led to enquiries, whence it leaked out that I got no pay for my poems. I was more than ever a mystery. How did I live? I toiled not, neither did I spin. I became known locally as "the man who writes poetry for nothing in the papers" and "the man who lives without working." Thus when the "Mail Coach" or "Queen's" road to Sherbrooke was blocked with snowdrifts, a tamarack ship-knee hunter said, "the postmaster at Ascot told me that he met "the man who writes poetry for nothing in the papers" crossing the crust on snowshoes to Sherbrooke and got him to carry the mail.["] Again, a teamster for Pope's Lumber Company, returning from Weldon, said much to my detriment – in Marbleton "I watch him when he comes back. I saw "the man who lives without working" buy a beautiful red neck-tie in Bury for 15 cents. I could have got it for a shilling in Marbleton. That's "a nice way to support his own village."["]"<sup>48</sup>

From the combination of William Edwin's *Peeps*, an article by Alexander Macfarlane in *Science* in 1902, Hankins' description of him, and seven articles about him in an appendix of Wayman's book about Dunsink Observatory, it can be deduced that after having lived in this way for a while William Edwin did start to work again, but he also lived very unhealthily although it is unknown when this took place, or what happened exactly. In one of the articles given by Wayman, one of William Edwin's friends, Reverend W.H.G. Colles, who had known him intimately during his last twenty years and had "frequently enjoyed his charming society in our home," stated that he was physically weakened from want of proper care; according to Macfarlane he had started to drink too much.<sup>49</sup>

But Macfarlane also claims that William Edwin took the "gold cure"<sup>50</sup> to conquer his addiction, and that he succeeded. Yet whether or not he had been an alcoholic, and even whether or not he was cured again, he had lived very irresponsible for some time, just spending his legacy and apparently also parts of Archibald's and Helen Eliza's.<sup>51</sup> Still, according to his aforementioned friend Colles, in his later years William Edwin lived a "gentle stainless life, untarnished by even a whisper of anything that would not be in keeping with the high code of honor to which he was early trained. He chose death before a dishonorable act – preferred to let the emoluments of place and power go by rather than to stoop to trickery and cunning. What a rebuke to the tendencies of the day!" "Every citizen of Chatham has a vivid mental picture as he passed up and down the street actively engaged in the business connected with his paper – The Market Guide – or upon some enterprise for the public good, or upon

<sup>47</sup> Taking a \$200 trip in 1870 as a commodity, according to the website *MeasuringWorth* in 2014 the income value of that commodity is \$55,800. That was a lot of money indeed. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 17 Aug 2015].

<sup>48</sup> [Hamilton Jr, 1895, p. 9]. According to the website *MeasuringWorth* in 2014 the income value of a \$0.15 commodity in 1870 is \$41.80. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 23 Oct 2015].

<sup>49</sup> See p. 451, [Hankins, 1980, p. 368 ff.], [Wayman, 1987, pp. 304-308]. Colles was, very likely, William Henry George Colles (1845-1928) who, born in Ireland, died in Chatham, Ontario.

<sup>50</sup> The gold cure, invented by Dr. L.E. Keeley (1832-1901), seems to have been different from other cures by treating alcoholism as a disease, making the alcoholic a patient to be cured.

<sup>51</sup> See p. 364.

some philanthropic errand.” He wrote “for public weal and betterment” and “patiently suffered what hard fortune put upon him,” never “asking a favor of any man” or “wrong a man to the value of one cent in a business transaction.”<sup>52</sup>

(3.3) The third photograph comes from an opinion column in the *Chatham This Week* of 2013.<sup>53</sup> No year is given, yet William Edwin looks like having been in his fifties or sixties, situating this photo around 1894. He then lived in Chatham, Ontario, where he published, in 1895, the second edition of his aforementioned *Peeps*. It is possible that the photograph of William Edwin comes from the last page of this pamphlet, but that cannot be recognized in the online scan. He died in 1902 when he was sixty-seven; according to an announcement in the *Chatham Daily Planet* of the 17<sup>th</sup> of March 1902 he “had been sitting in a chair in the Rankin Hotel. He suddenly arose, walked out on King Street and fell. Mr. Hamilton was picked up, carried up stairs in the Rankin Hotel and Dr Hall was summoned. All efforts to resuscitate the aged editor proved unavailing and he expired within five minutes after he was picked up. Mr Hamilton left his room this morning about 9.30 and appeared to be in his usual health. He had a beef tea at the Rankin Hotel about 11 o’clock.”<sup>54</sup>

### The fourth row, Archibald Henry

(4.1) This photograph comes from Hankins’ biography. Archibald (1835-1914) seems to be in his sixties or seventies, situating this photo around 1905. Not much is written about him, but in an appendix to Wayman’s book about Dunsink Observatory, some beautiful, youthful reminiscences by Hamilton’s granddaughter-in-law, Mrs. O’Regan, are given. “I think it must have been about the year 1897 when the Rev. Archibald Hamilton came to stay with my parents to take duty for my father who was ill. To me he looked old, but I was 10 and to me anyone who was over twenty was old. As well as preaching for my father he took Sunday School after lunch, in an outlying village called Letterbreen where we were all driven by my brother in a pony trap.

“We were delighted with the old man because, although he wasn’t at all of this world, he was very definitely of ours. It was a long drive and I think it must have been in Autumn or Winter because I remember being told the names of the stars as we drove home; he also described the work his father used to do and kept us interested all the way home. He never married, and as long as I knew him until he was too old he did locum tenens for sick clergymen.

“I found out from my husband that he was financing the old man, but this was some years afterwards. In 1912 we were married, when I began to know the old man as Uncle Archie. My husband used to pay for him to live with an old friend, a Mrs Watson who lived in Lisnaskea, and he also stayed with Miss Emmy Porter at Killycoonagh, after which our house in Marlborough is called; Miss Porter had been a great friend of Helen Hamilton, my husband’s mother. She was also very kind to Uncle Archie, having him to stay on the few occasions when John spent some of his school holidays with her; it was at Killycoonagh that he and I met and became

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<sup>52</sup> [Wayman, 1987, pp. 306-307]

<sup>53</sup> Rhodes, J. (2013), Hamilton listed cost of everything in his diary. *Chatham This Week*, August 20, 2013. [www.chathamthisweek.com/2013/10/08/hamilton-listed-cost-of-everything-in-his-diary](http://www.chathamthisweek.com/2013/10/08/hamilton-listed-cost-of-everything-in-his-diary) [Accessed 15 Oct 2014].

<sup>54</sup> [Wayman, 1987, p. 304]



engaged. It was said of Miss Porter that she was the original character of ‘Mrs Flurry Knox’ in *All on the Irish Shore* by Somerville and Ross;<sup>55</sup> and indeed she was a most original character. I was told that she and her brother, Porter-Porter of Belle Isle [(1855-1939)], rode all over the Holy land on ponies in their youth; she was old when I stayed with her and died shortly after our marriage.<sup>56</sup>

“It was a great day in our lives as children when we were taken for walks and drives by Mr Hamilton. He was a great walker, as everyone had to be then, and he liked having us with him; he was very fond of children and loved to tell us stories. We loved to listen because he never talked down to us but rather gathered us into a sort of mutual tale of experiences. We got insights into early Irish history such as that he said he had read somewhere that the early Irish, in order to keep the cold out, rubbed themselves all over with oil instead of washing! We were never allowed to try it out.

“He had the courtly manners of those days and dressed in the long tailed coat of black broadcloth and the vest of black corded silk, then the usual clerical costume; we were very proud to accompany him. We noticed that he seldom had an overcoat; we heard that he had a habit of giving his away to one or other of the many ragged tramps who frequented the roads of Ireland, wandering from house to house begging for food or old clothes.”<sup>57</sup> Archibald Hamilton died at Riverside, Maguiresbridge in June 1914 when he was seventy-eight.<sup>58</sup>

### The fifth row, Helen Eliza Amelia

(5.1) The first photograph forms a whole with the fourth photograph of Hamilton on the second row. It comes from Hankins’ biography where the complete picture is given, but there Helen Eliza (1840-1870) is mistaken for her mother Helen.<sup>59</sup> As mentioned earlier, the photograph was taken towards the end of September 1859, when Helen Eliza was nineteen years old.

<sup>55</sup> Somerville, E.C.E., Ross, M. (1903), *All on the Irish Shore : Irish Sketches*. London: Longmans, Green, and Co. <https://archive.org/details/onirishshoreiall00somerich>. Yet the character Mrs. Flurry Knox comes from a book series, also by Somerville and Ross: *The Irish R[esident] M[agistrate]*, stories which appeared originally in the London *Badminton Magazine of Sports and Pastimes*, see for instance pp. 355-374+473-490+591-609 of <https://archive.org/details/badintonmagazi04unkngoog>. The three books of the series are *Some Experiences of an Irish R.M.*, 1899, [https://archive.org/details/cihm\\_93571](https://archive.org/details/cihm_93571), *Further Experiences of an Irish R.M.*, 1908, <https://archive.org/details/furtherexperien00rossgoog>, *In Mr Knox’s Country*, <https://archive.org/details/inmrknoxscountry00some>. These three books were also published by Longmans, Green and Co.

<sup>56</sup> John Porter Porter from Belle Isle, Lisbellaw, County Fermanagh, was born in 1855. He does not seem to have had a sister called Emmy, and if he had, she would have been born after 1852, the year John’s parents married, and therefore somewhat young to be “a great friend” of Helen Eliza who was born in 1840. But he did have an aunt called Emmy, a sister of his mother Adelaide Mary Porter; of this aunt no birth or death years are given. Adelaide Porter died in 1926, making it perfectly possible that her sister Emmy Porter lived until 1912, the year in which Hamilton’s only grandson John O’Regan married Phoebe Abbott. See p. 571 of Burke, B. (1912), *A Genealogical and Heraldic History of the Landed Gentry of Ireland*. London: Harrison & Sons. <https://archive.org/details/genealogicalhera00burkuoft>, and the website *The Peerage*, [www.thepeerage.com/p26556.htm#i265556](http://www.thepeerage.com/p26556.htm#i265556). [Websites accessed 13 Aug 2015].

<sup>57</sup> [Wayman, 1987, p. 303]

<sup>58</sup> See p. 114 of Leslie, J.B. (1929), *Clogher clergy and parishes : being an account of the clergy of the Church of Ireland in the Diocese of Clogher, from the earliest period, with historical notices of the several parishes, churches, etc.* Printed for the Author by R.H. Ritchie, Enniskillen. [https://archive.org/details/MN5034ucmf\\_0/mn5034ucmf\\_0.djvu.txt](https://archive.org/details/MN5034ucmf_0/mn5034ucmf_0.djvu.txt).

<sup>59</sup> [Hankins, 1980, p. 123]

(5.2) The second photograph also comes from Hankins' biography.<sup>60</sup> It is not known when this photograph was taken, but Helen Eliza seems to be in her late twenties. In Hankins' book she can be seen from head to toe, and realizing how tight the waists were laced in those days she may have been pregnant when the photograph was taken, situating it towards the end of 1869, or in the first half of 1870.

According to Hankins, Helen Eliza wrote a novel, having started "probably when she was about eighteen. It is romantic in the extreme and continued over many pages through many years." After her father's death Helen Eliza resumed writing in July 1866 with the statement: "This book begun in an affluence of love and time I dedicate to the absent and the dead. It seems to be my duty to return to writing this novel as the only means of relieving an almost uncontrollable depression of spirits. I gave up the task because it interfered with my home duties – having no home now that reason does not hold."<sup>61</sup> Therefore I take up the task partly as a duty and also to give my mind some object of deep interest."

In 1869 she married John O'Regan who was twenty-three years her senior. In 1862 she had written in her diary: "I understand that glorious nature. I could play on his heart as on a harp, it should answer to my least touch and he loves me – I am his friend, his eye rests with pleasure on my face when he looks at me. Oh how glorious and how gentle should I be to be worthy of the love of such a man."

After their son's birth in May 1870, she did not recover. "In her illness she returned to her manuscript book and wrote the words: "Something of me is imaged here. Sketches might be selected from this book for publication. I leave to my friends farewell. What my novel might have been I know. The world never will. 'All things come to an end but thy commandment is exceeding broad.' Farewell!"<sup>62</sup> She died when she was twenty-nine, about a month after the birth of her son. It would be very interesting to read her novel, even when unfinished.

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<sup>60</sup> [Hankins, 1980, p. 381]

<sup>61</sup> After Hamilton's death the Hamilton family had to leave the Observatory; Hamilton's successor, Franz Brünnow (1821-1891) indeed lived there from 1865 to 1874. [Wayman, 1987, p. 96].

<sup>62</sup> [Hankins, 1980, pp. 380-382]. Helen Eliza's quote is from *The Book of Common Prayer*, of which there are many editions. An 1892 edition can be found on the *Internet Archive*, with the quote on p. 469: The Psalms. The 25. Day. In eternum Domine. 8 I see that all things come to an end: but thy Commandment is exceeding broad. *The Book of Common Prayer : from The Original Manuscript : attached to the Act of Uniformity of 1662, And now preserved in the House of Lords*. London: Eyre & Spottiswoode. <https://archive.org/details/BookOfCommonPrayer>.

## Chapter 2

# Early years

*The following chapters, describing Hamilton as a lover, a brother and a husband as he called himself towards the three women in his life, will start with his mother's proud letters, the short but intense periods of close contact between Hamilton and his father, the lasting influence that had on Hamilton, and his father's death. Next, Hamilton's two antenuptial loves will be described; through the way he coped with these losses much can be seen of the way he dealt with himself in later years, which will be useful for the discussions in the last chapters. It seems reasonable to assume that due to the losses of his youth Hamilton felt his later losses, including rejections, as deeper, or as harder, than people do in general, yet it will also be shown that in the end he coped with them in a healthy and intelligent way. These chapters will be concluded with Helen Bayly's acceptance of his marriage proposal.*

All biographies of Hamilton, either the long or the short ones, describe him as a child prodigy who was sent, before his third birthday, to his uncle to be educated. In those days that was seen as a wise decision; he was taken very good care of by his uncle James (1776-1847) and aunt Sydney (1779-1814), both siblings of his father, and by his aunt Elizabeth Boyle (ca 1791-1848), uncle James' wife, and there were regular visits from both sides.<sup>1</sup>

Aunt Sydney wrote letters to Hamilton's mother, Sarah Hamilton Hutton (1780-1817), about how her son was doing, but Graves only gives three letters written by Hamilton's mother herself; one to her husband, Archibald Hamilton (1778-1819), and two to her sister Mary Hutton [(.. -1837)].<sup>2</sup> In these letters, or parts of letters, she sounds very lovingly and very proud of her son, and full of amazement about him.

In 1810, when Hamilton was four or five years old, a date not being given, his mother wrote to her sister: "My dear Mary, I have put off from day to day writing to you, till I am almost ashamed of myself; but I had William in town, and he took up my whole thoughts: he is one of the most surprising children you can imagine; it is

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<sup>1</sup> [Graves, 1882, p. 36], [Graves, 1882, p. 39]. Uncle James was Curate and Diocesan Schoolmaster in Trim, county Meath.

<sup>2</sup> See for instance p. 60 of Swanwick, S.L., Jones, J.E. (1899), *The descendants of Rev. Philip Henry, M.A., Incumbent of Worthenbury, in the County of Flint, who was ejected therefrom by the Act of Uniformity in 1662. The Swanwick branch to 1899.* Toronto: Printed for private circulation by The Brown-Searle Printing Co. <https://archive.org/details/descendantsofrev00swanuoft>.

scarcely credible: he not only reads well, but with such nice judgment and point, that it would shame many who have finished their education. His reciting is astonishing, and his clear and accurate knowledge of geography is beyond belief; he even draws the countries with a pencil on paper, and will cut them out, though not perfectly accurate, yet so well that anybody knowing the countries could not mistake them; but you will think this nothing when I tell you that he reads Latin, Greek, and Hebrew!! It is truly funny to see the faces some of the Wise Heads put on after examining him: they first look incredulous; then they look as if he said it as a parrot would; but after an examination of various books and various parts of the same book, and when sometimes, to correct those who from long neglect to read these dead languages have forgotten some letters, he puts them in, – if they say no, he says, “well but it is so,” and when they must agree with him, he says, “now see the advantage of attending to what you read” – they stare; then say that it is wrong to let his mind be so overstocked. They cannot suppose that all this is learned by him as play, and that he could no more speak or play as children in general do, than he could fly. Everything he must have a reason for. The things at dinner are the different countries of the world; if he wants his handkerchief tied round his throat, it is please put this round my Isthmus; if his eye itches, it is his east eye, or his west. He reads the Hebrew with points. H. H. is learning it without. She, being rather incredulous, brought her book, to see the difference of pronunciation, and what was the advantage of points. She read for him, but he got so vexed at her persevering to pronounce the words so differently from what it is with points, that he began to cry most piteously, and came and told me she went to examine him, and that she knew nothing about it at all, that she called her letters wrong, and could not say Hashamaim<sup>3</sup> as it should be said, or any other part any more than a dunce. We had some trouble to pacify him, and after that, if he was asked to read Hebrew, he always asked, “do you read with points?” But by this time you are completely tired of a mother’s enthusiasm about her prodigy of a son.”

In August 1810 she wrote to her husband while being in Trim: “The dear children are well, and when the weather permits are constantly in the garden. Willy is as fond as usual of using his Hebrew or Latin on any occasion that strikes his imagination. Mr. Boot breakfasted here yesterday, and Willy at breakfast looking into his mug said, “Aunt, my mug is bohu” which signifies empty, or rather void. You would be amazed to hear him translating the first chapters of Genesis, and very anxious to get to the account of the flood.”

And in Spring 1813, when Hamilton was seven years old, she wrote to her sister, apparently being in Dublin: “We had a most pleasing letter from James Hamilton to-day, saying that he could now say that William was master of three languages, and that he prepares his business; and without any assistance, and that it is always correct. He also says that he finds so little difficulty in learning French and Italian, that he wishes to read Homer in French. He is enraptured with the Iliad, and carries it about with him, spouting from it whatever particularly pleases him. This will give you pleasure to hear, and was very gratifying to us.”<sup>4</sup>

The letters of those days, or actually parts of letters, which are selected by Graves for publication are full of stories about this amazing child, about his achievements and how astonished everyone was. But even in these short stories sometimes the later

<sup>3</sup> The Hebrew ‘Malkuth Hashamaim’ can be translated as ‘Kingdom of Heaven’.

<sup>4</sup> [Graves, 1882, p. 36], [Graves, 1882, p. 39], [Graves, 1882, p. 43]

Hamilton can be seen already, for instance in his unwillingness to just bow down to social conventions. In February 1810, when Hamilton was four years old, aunt Sydney wrote to his mother: “I never take him to church now except on a day when there is to be no sermon, for he has not patience to sit it out; even on Wednesday he said, out loud, when the litany was over, “when do you intend to take me home?” And he is not a young gentleman to be frightened into good behaviour.” But despite all the genius Hamilton was a playful child: according to Tait “a relative” said: “I remember him a little boy of six, when he would answer a difficult mathematical question, and run off gaily to his little cart.”

It is not clear when Hamilton learned to write; his education had apparently focused more on reading and less on writing. In April 1812, when Hamilton was six years old, aunt Sydney wrote to his mother: “In the meantime tell Eliza, that we hope you will bring her to see us before summer, and that Willy and Grace send her many kisses, and intend to write her a letter. Willy says, to be sure he was never taught to write, but thinks she may make it out; and I beg you may admire his economy: he requests I may not give him the best paper, as that, he thinks, would be great waste, as he writes so badly.”

And although Graves does not give letters from Hamilton when he was young he did write letters to his mother; Graves writes that “of extracts from [Hamilton’s] early letters [...] the first three in my hands are addressed to his mother, the last of them bearing date less than two months before her death [in 1817]. They are childishly simple, full of facts, personal, domestic, and local, most promiscuously poured out, some of them expressed with a quiet brevity that has a touch of humour.”<sup>5</sup>

## 2.1 Early deaths and close contact

Aunt Sydney died of cancer when Hamilton was nine years old; she died in Dublin while being taken care of by Hamilton’s parents. Hamilton’s mother died when he was eleven years old; but about her death not much is written. It is clear though that she had had a happy marriage; Graves writes: “In 1817 [Archibald Hamilton] had the great misfortune of losing his wife. The letters which remain from the pens of both prove that she was an excellent religious woman, full of love and respect for her husband, and that his affection for her retained, throughout the seventeen years of their married life, a warmth and a trustfulness which could not be exceeded.”

In a footnote Graves adds: In the *Freeman’s Journal* of Tuesday, May 13, 1817, appears the following obituary notice: “Died on Saturday night, after a few hours’ illness, Mrs. Hamilton, wife of Archibald Hamilton, Esq., of Dominick-street. The best proof of the worth and excellence of this most lamented lady is, that everyone who knew or even heard of her is a sincere mourner. Among good women she would be distinguished for every quality of heart that reflects honour upon humanity. She has left a disconsolate husband and young family to deplore a loss of which time cannot efface the remembrance, and to them may be truly said to be irreparable.”<sup>6</sup>

Late in May 1817, shortly after his mother’s death and by then eleven years old, Hamilton wrote a letter which was mentioned but not given by Graves, and according

<sup>5</sup> [Graves, 1882, pp. 37-38], [Tait, 1866, p. 21], [Graves, 1882, p. 42], [Graves, 1882, p. 48]

<sup>6</sup> [Graves, 1882, p. 27], [Graves, 1882, pp. 14-15]

to Graves it was “a saucy letter in Latin to his cousin Arthur [(1776-1840)], asking him when he was going to be married.” ‘Cousin Arthur’ was a cousin of Hamilton’s father who would, after Archibald Hamilton’s death, become very important to Hamilton, perhaps even a father figure.<sup>7</sup>

The following summer Hamilton made, for the first time, a trip with his father, a holiday for him, mostly a business trip for his father. Graves describes this childhood experience as: “On the 10th July, 1817, he writes to his aunt urging pleas for his being invited up to town in the approaching holidays, such as “that his birthday was to occur;” “that he could take up his books;” “that fresh water was not so salutary for bathing as salt water.” Dublin had always a great charm for him. His desire was granted. [...] Referring to this exciting episode in his childhood’s history, he thus forty-four years afterwards writes of it to his friend Professor De Morgan.

“February 5, 1852. “Since you tell me that you are so much of a British Indian by descent, I must tell you that I was very near being made a Hiberno-Indian by my father, when I was a child.<sup>8</sup> My father was Archibald Hamilton, Esq. (I cannot find it in my heart to omit the “Esquire”), of No. 29 (now 36) Dominick-street, Dublin, and from anything that I have since heard (for he died when I was only fourteen) he must have been in the very first rank of Dublin solicitors. He must have had an English and foreign connexion, for I remember well my going with him in the year 1817, when I was twelve years old, almost “en prince” in a luxurious post-chaise, or what then appeared to me such, scattering half-pence or “bawbees” to poor people (a very unwise thing, as I have since come to think), to the north of Ireland – Derry, Newtown-Limavady, etc.; connected with each of which places, as also with the Giants’ Causeway, which we then visited, I have this day a set of uneffaced although childish remembrances; and I know that it was as agent to the Fishmongers’ Company of London, that he then visited officially certain of their estates; the Giants’ Causeway being probably thrown in to amuse, or gratify, or instruct me. A few of my father’s letters remain; he was a man of remarkable ability, and I must ... ”” Graves remarks: “Here unfortunately the copy breaks off.”

Graves comments on Hamilton Sr.’s character: “Archibald Hamilton, his father, was a man of great energy and strong impulses, of remarkable business powers, of exuberant eloquence, both of the pen and lips, of strict evangelical views of religion, and of zeal in expounding and enforcing them, but withal of tender affections, and a convivial disposition; delighting in repartee, whether his own or that of others, and much given to quizzing (as then the phrase went) some companion or fellow-traveller, a tendency, however, which was kept in check by his strong practical sense and sound moral principles.”<sup>9</sup>

That summer Archibald Hamilton had also rented a house for the vacation; in 1857 Hamilton wrote to De Morgan: “[My son] Archy is a particular pet of the present Finglas Vicar, Mr. O’Regan,<sup>10</sup> who succeeded to Dr. Walsh [(1772-1852)],<sup>11</sup>

<sup>7</sup> [Graves, 1882, p. 50], p. 206

<sup>8</sup> Hibernia is Latin for Ireland. According to Graves, Hamilton’s father was enthusiastic about the idea that Hamilton would learn “the Oriental languages” “with a view to India” in case he would “enter early upon political studies.” [Graves, 1882, p. 57].

<sup>9</sup> [Graves, 1882, pp. 53-54], [Graves, 1882, p. 9]

<sup>10</sup> In 1869 John O’Regan married Hamilton’s daughter Helen Eliza.

<sup>11</sup> Dr. Walsh was curate of Finglas from 1806 until 1820, and vicar of Finglas from 1839 until 1852. There is a beautiful story told by his grandson about how the people of Finglas had buried a cross,

once Chaplain to Lord Strangford [(1780-1855)] in the Embassy at Constantinople, and otherwise known as a traveller and as an author. Dr. Walsh and I were great friends: one of my earliest recollections is of my father's having taken for the summer a house of his at Glasnevin, in this neighbourhood, and of my pursuing there some daring and forbidden explorations; mounting on tables and chairs, to reach a sort of angle in the roof, whence I contrived to drop into a locked-up lumber-room, where I only found some old dials and things of no importance. But the chamber had the charm of prohibition, having probably been reserved by Dr. Walsh, before he went to the East, or, at all events, before he set the house, which still exists, to my father. Be that as it may, Dr. Walsh quite forgave me, and laughed at the story when I told it to him, after (say) twenty or twenty-five years; but at the time I must have been embarrassed to emerge. (*Facilis descensus ... sed revocare gradum ...*) [It is easy to descend ... but to retrace the steps ...]. Some ladder I think was put down for me, and I got, of course, a very good scolding, which does not prevent me from remembering that Glasnevin house with a certain affection and interest. Child as I was, I well recall my reading Shakespeare in bed, on some glorious summer morning, perhaps at five o'clock, while with a half-averted glance I watched, from time to time, the gambols of two kittens, of which one occupied in triumph the seat of a chair by my bedside, while the other attempted to dispossess her. Forty years have passed away, for I speak of 1817; but I feel that I make no misnomer, when I say the names of the kittens were Molly and Jane. With the true spirit of a boy come back upon me, I name my own pet, Molly, the first; the other, Jane, was the pet of my sister, Eliza, the poetess. We used to let them out, sometimes separately, at two different holes in the roof, and then run out on the leads, to enjoy their surprise at meeting each other. It is, no doubt, a consolation to me, that the love between my sister and myself was never interrupted; and that, at last, she died in my arms."<sup>12</sup>

In March 1818 Hamilton wrote to his father, who had moved from No. 29 Dominick-street to No. 18, "inquiring about his new house" and, apparently also interested in the law, he asked him "can a man after being discharged by the Grand Jury be brought to trial again?"<sup>13</sup> And in August he wrote that he was "very busy going over Homer and Virgil, and some other books, and have advanced a good deal in Science. I have made a kind of epitome of Algebra in my large Album. I am reading a

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the cross of Nethercross, to hide it from Cromwell's soldiers. That must have been in, or shortly after, 1649, the year in which Cromwell landed near Dublin. Years later it was forgotten about, until the Rev. Robert Walsh became curate in 1806, and "discovered an extremely old man, who told the family story, as handed down to him, that his grandfather, when a boy, had been present at the burial of the cross in a corner of one of the glebe fields." The cross was found "in due time" and erected in "the ancient graveyard". The story can be found on pp. 143, 147-148 of Walsh, R., (1888), *Fingal and its Churches : a Historical Sketch of the Foundation and Struggles of the Church of Ireland in that part of the County Dublin which lies to the North of the River Tolka*. Dublin: William McGee. <https://archive.org/details/fingalitschurche00wals>.

<sup>12</sup> [Graves, 1889, p. 513-514]. The Latin fragments come from the Aeneid by Virgil.

<sup>13</sup> Already as a child Hamilton was interested in trials; while still eleven years old he wrote to his mother: "The Assizes ended on Thursday, and we went to business on Friday. Those four men were not executed either till Thursday." Graves adds: "So that he had his wish of attending the Assizes. He continued long after to take an interest of more than curiosity in these stated sessions of law. The last few words of extract just given show that the forfeit of lives solemnized those Sessions; in a subsequent letter he speaks of twenty-four men being tried for murder at one Assizes, and fourteen of them sentenced to death." [Graves, 1882, pp. 49-50]. It is rather hard to grasp what the influence was on his views on life and death; it must have been quite different from contemporary views.



little Italian in order to study the notes of an Italian Virgil that uncle has, and read Clairaut's Algebra in French. Sydney is doing arithmetic with me, and is going on very well in it." <sup>14</sup>

## 2.2 An impressive year

According to Graves, the period from Hamilton's schooltime in 1816 until his entrance into College in 1823, "was divided about half way by the death of his father [in 1819], an event which made the character of the latter half very different from that of the earlier portion." The year 1819 was a "year in which his father's influence was exerted upon him with great energy and activity, and in which it was withdrawn with death, so as to be thereafter the influence of a memory only." "His father's death became in the onward course of his life a new point of departure, and from that time we shall see the boy rapidly changing into the man." <sup>15</sup>

Towards the end of February or early in March 1819, when Hamilton was thirteen years old, his style of writing letters changed. Graves writes: "To some criticisms on a letter of his to his father, which appear to have been conveyed to him through his uncle, the boy made the following reply, which strikes me as really admirable, for the combination it displays of filial deference and personal humility with a suggestion that his father might be rather unreasonably looking for results, in the shape of letter-writing, which were not such as would be the best product of the stage of cultivation at which he had arrived, and which were incompatible with the devotion of his time to taking in knowledge." <sup>16</sup> This was probably the first studied letter that he ever wrote; and from this date a change in the style of his letters may be observed, and with it a change in his handwriting; for at this time he came under the instruction of a Mr. Jones, from whom he learned short-hand – a process of the advantages of which he long continued to avail himself – and from whose rules he derived that remarkably clear and regular cursive handwriting by which he was ever after distinguished." <sup>17</sup>

His father's criticisms must have impressed Hamilton deeply; he studied "with perfect ease" yet "not without diligence," but in the earlier letters given by Graves there is no sign that until that day anyone had been "unreasonably looking for results." On the contrary, Hamilton had been completely used to praise, also from his very proud father as can be seen in a letter Hamilton wrote to De Morgan in 1852: "My father used to enjoy the provoking me into some political or other argument, in which I always took my uncle's side. The seal, which I still use, and which contains a sort of abridgment of my father's arms, was given me by a maiden aunt, Miss [Mary] Hutton, on the occasion of my triumphantly winning, as my father more triumphantly confessed to some friends (or flatterers) whom he had collected, in a contest of eloquence with himself for my first watch, which, when I was about twelve years old, he affected to deny that he had promised me." <sup>18</sup>

<sup>14</sup> [Graves, 1882, p. 54]. Hamilton was alluding to his younger sister Sydney.

<sup>15</sup> [Graves, 1882, p. 48], [Graves, 1882, p. 55], [Graves, 1882, p. 48]

<sup>16</sup> Earlier writings given by Graves were more or less summing up what he had done and what he had learned, like the small part given by Graves containing the "going over Homer and Virgil" as cited above.

<sup>17</sup> [Graves, 1882, p. 55]. Hamilton had not learned to write at an early age, see p. 27.

<sup>18</sup> [Graves, 1882, p. 47], [Graves, 1889, p. 392]



### Hamilton's first "studied letter"

In reply to his father's aforementioned criticisms Hamilton wrote on the 4<sup>th</sup> of March 1819: "I should have tried before this to write a letter more to your liking than my last, but that till now my cold has hung rather heavily upon me, and I might also add the (perhaps deservedly) reprehensive tone of your remarks. I hope one day to have more matter for correspondence, and more the talent of expressing it correctly. I sometimes feel as if the bottle of my brain were like those mentioned, I think in Job, "full and ready to burst"; but when I try to uncork and empty it, like a full bottle turned upside down, its contents do not run out as fluently as might be expected; nor is the liquor that comes off as clear as could be wished. Perhaps I am not long enough in bottle to be decanted. I fear indeed the vintage of my brain is yet too crude and unripe to make good wine of. When it shall have been more matured, I hope the produce of the vineyard you have planted and watered will afford some cups "to cheer but not inebriate" you, at least not shame you, as was the case of the Patriarch who was the earliest planter of the vine, and who perhaps was in too great haste to drink of its fruits in a precocious state of growth or premature stage of fermentation. With respect to my having so much more time than yourself for letter-writing, besides that that would be balanced by my inferior abilities for the task, I have another rebutter to put in. Though not as usefully or profitably employed, my time is perhaps as fully forestalled as your own. To putting Horace back into Latin I have now added the putting Virgil into English blank verse – a task I pursue, as the Italians say, *con amore*, or to use a more elegant (or perhaps more pedantic) phrase from Horace, "*studio fallente laborem* [studiousness makes the exertion unfelt]." I hope it will help me a step up the hill of original composition, of which I confess myself at present at the bottom."

Graves remarks: "This letter brought him the first he ever received from his father. It was a long and very urgent appeal to him to make the Christian religion and the Word of God the foundation of his principles, of his studies, and of his conduct. [...] It was followed two months after by a letter of fifteen quarto pages of the closest smallest writing, which must have cost the writer the labour of days both of thought and hand. This letter pours out from the fatherly mind and heart the experience and observation of a life in a discussion of the comparative merits of the different professions which he considered open to the choice of his son, and in advice connected with the conduct of public life in those higher ranges, no one of which was regarded by him as too high for his son's reasonable ambition. The whole of this letter is instructive and interesting, and I would gladly reproduce it in extenso if my space were unlimited."<sup>19</sup>

In this long letter, written on the 20<sup>th</sup> of May 1819 and given partly by Graves, Hamilton's father gave much advice about various possible professions, yet he left his son's options completely open. Clearly being of the opinion, as Graves mentioned, that his son could indeed achieve anything he concluded the letter with: "I wish not to influence, but fairly to state the advantages and disadvantages of each of the learned professions, in one or other of which it is more than probable you may be destined to fill, I trust, not a background post nor a station of mediocrity. It is for you to consider all, to consult with judicious friends, and to determine on one, and then to

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<sup>19</sup> [Graves, 1882, pp. 55-57]

pursue your choice with a fixed purpose of distinguishing yourself in character, usefulness, and talent. Should Divinity be your final pursuit, I would recommend Trinity College, Dublin, to you as your “alma mater”: raise her character, and with it the character of your country and your adopted pursuit, by a pre-eminent display of Biblical and critical knowledge in Theology. Add to the erudite character of her sons by a hitherto unattempted display of useful Oriental attainments, illustrating the dubious sense of many passages in the Vulgate and Greek editions of the Old and New Testament, by reference to the sense of the same passages in the Hebrew, Syriac, and Arabic. Lay the foundation of a totally new and enlarged study of the Oriental languages, by which you will render the Professor’s chair of that department more dignified, and thus entitle yourself to the fair prospect of one day filling it with honour to yourself and advantage to the University of your native country. Pursue this without abandoning your course of Science or your improvement in the Classics, and with the certainty in the course of time of a large living in the Church, as the first reward of your prior labours, and previously acquired academic honours and elevation; still hold in view the ultimate reward of your talent, the Provostship, and a mitre. Honors thus acquired in the Church will excite no envy, compromise no principle, nor degrade your mind by following in the servile train of any great patron. If, however, a political or legal course should prove your choice, I would recommend you, after distinguishing yourself in Trinity College, to push your fortune and display your talent in either Oxford or Cambridge, where you will be enabled to form connexions and society calculated most essentially to serve you in your future pursuits and to advance your interests. By all means be called to the English Bar, from whence you can, as of course, if disposed, transfer yourself to the Irish Bar, and again return to the English to lay hold of any fair opening there, without losing the benefit you might afterwards wish to avail yourself of by interest in either country, through having been six years called to each Bar. With this last advantage acquired, I would advise you to adhere to the English Bar, to seize any and every opportunity of pushing your way at it as a lawyer, and at the same time keeping in view the study of politics, so as to be ready at a moment’s notice to jump from Westminster Hall into the Senator’s chair, and from thence to seize the reins of the State, and guide its course with masterly skill, acknowledged judgment, and with the confidence and approbation of your sovereign and the country.

“I have thus sketched out a course adapted to your selection of either the Law, the Church, or, connected with either, the State.<sup>20</sup> It is perhaps too premature and too diffuse, too vain and too vague, nay perhaps quite Utopian; still, there it is, and if you see much to reject, you may yet profit by even a partial selection of some of the hints suggested. I only throw it out for consideration and mature deliberation, as fit ideas to form from thence a more compact plan of your own, on which to consult abler heads: reject therefore the chaff, but do not give the wheat to the winds; profit by what may be founded on good sense, and reject what may have no foundation

<sup>20</sup> Indeed, in the letters given by Graves it can be seen that Hamilton had shown interest in the law, see p. 29, in politics: at thirteen years of age he attended an election for the county and listened to the speeches, see [Graves, 1882, p. 54], and in religion: when he was twelve years old his father had written in a letter that “William is [very fond] of his Bible, and even amidst all his learning thinks that the best. [...] He has a book in which he writes down [...] the heads of all sermons he hears.” [Graves, 1882, pp. 45-46]. And his father did not try to keep him away from science although it did not have emphasis, see p. 32.

but in exaggerated hopes and premature designs. My sole wish is to render any part of it useful to you, and thereby prove my affection and zeal for your future prosperity and respectability in life. Let me have your ideas.”<sup>21</sup>

## 2.2.1 A long vacation

Apparently from the last week of May 1819 Archibald Hamilton stayed “at Booterstown, near Dublin, lonely and in low spirits. He soon asks from his brother leave for his boy to join him; permission was granted, and for more than two months from the beginning of June the boy of thirteen became his father’s companion. This visit gave young Hamilton a sight of the world such as he had never enjoyed before. [...] He soon had many acquaintances in the neighbourhood.” Next to some study, and practising his shorthand by taking down the sermons of the Dublin preachers, Hamilton enjoyed himself greatly, for instance by riding an “accelerator”, according to Graves “the bicycle of those days.”<sup>22</sup>

And there Hamilton fell in love for the first time: “he was a welcome guest, privileged to come in every evening, at Willow-park, then occupied by a family with whom he cemented relations of permanent friendship, and in that family circle his impressible heart received from a daughter of the house the first stirring of a feeling which in after times caused him his keenest joys, and his sharpest sufferings. And if his subsequent experiences were of so different a character from this early partiality, as to exclude it from being reckoned as a real passion, yet even at a late period of his life he was able to record with interest the time when he had not ceased thinking of D. Br—.”<sup>23</sup>

<sup>21</sup> [Graves, 1882, pp. 59-60]

<sup>22</sup> [Graves, 1882, p. 60]. These were the very early days of the bicycle; according to the website *Bikes – An Illustrated History* with texts from D. Fiedler, it began in 1790 with the ‘Celerifere’, “One of the earliest bike prototypes. Did not have pedals or steering.” It was followed in 1817 by the ‘Draisine’, “a new form of the celerifere by adding handlebars.” “When using either of these devices, the rider perched on a seat between two similarly sized wheels, and using the feet, propelled the bicycle a bit like a scooter.” See for instance [www.thoughtco.com/bikes-an-illustrated-history-365776](http://www.thoughtco.com/bikes-an-illustrated-history-365776) [Accessed 09 Sep 2017]. In western Europe, 1816 had been a “year without summer” due to the 1815 eruption of the Tambora volcano in Indonesia. According to the Dutch writer Dröge, this stimulated Drais to invent, in 1817, his ‘Draisine’, or “hobbyhorse”; due to oat shortages also horses had become more scarce. Dröge, P. (2015), *De schaduw van Tambora*. Houten: Uitgeverij Unieboek | Het Spectrum bv.

<sup>23</sup> [Graves, 1882, p. 61]. This is the first time Graves tries to conceal a name, but since most of these people belonged to the peerage, their names were easily guessed. During those years Francis Tempest Brady (1762/1763-1821) lived in Willow Park House, and he had a daughter Dorothea. Her year of birth is unknown, but Francis Brady had married Charlotte Hodgson (..-1822) in 1789. They had three sons and eight daughters; the sons all survived into adulthood, but by 1817 they had lost five daughters, of the fifth daughter nothing is known. The seventh and eight daughters, Dorothea and Charlotte, lived until 1874 and 1876 respectively. One of the deceased daughters had been called Dorothea and had died in 1793, another deceased daughter called Charlotte in 1799; Dorothea will thus have been born after 1793, and Charlotte after 1799. Since Charlotte married in 1825 she will have been born in any case before 1810, and since in 1808 the third son was born she thus most likely will have been born before him. Dorothea was the seventh daughter and was thus born before Charlotte, that is, between 1793 and 1807. Dorothea married in 1842, and had issue, and since conceiving a first child after forty is generally difficult she was most likely born after 1802, making her of Hamilton’s age indeed. See p. 66 of Foster, J., *The Baronetage and Knightage of the British Empire for 1882*, volume 2. Westminster: Nichols and Sons. <https://archive.org/details/peeragebaronetag02fost>; p. 73 of O’Hart, J. (1892), *Irish Pedigrees; or, the Origin and Stem of the Irish Nation*. Dublin: James Duffy and Co., Limited, <https://archive.org/details/irishpedigreesor01ohar>,

Hamilton wanted to stay longer than planned, according to Graves among other things on the ground “that he might have the opportunity of repeating a visit to the Observatory which he had made on the day before. This was his first sight of the house which was to be his future home. He had walked out there with two apprentices of his father, carrying a lease as a letter of introduction to Dr. Brinkley [(1763-1835)], the Astronomer Royal; but to his disappointment the great man was absent, and he had to be contented with being shown the instruments by the assistant, and receiving some information respecting the comet which was then visible.”<sup>24</sup>

“The prayer of the petition was granted, but it does not appear that the Observatory was again visited by him during his stay at Booterstown. [...] Another pretext for remaining longer in the neighbourhood of Dublin was his desire to see the acting of Miss O’Neill. This pleasure he enjoyed at the Crow-street Theatre on his birthday, when she acted Juliet to Kemble’s Romeo, and on another occasion when she took the part of Mrs. Haller in Kotzebue’s play of *The Stranger*. [...] In [a] letter [...] from his father to his former assistant and friend, Mr. Hoare, the following passage refers to this enjoyment of his son, and tells more than otherwise would have been known of Hamilton’s early love and study of the English Drama.”<sup>25</sup>

On the 16<sup>th</sup> of August Archibald Hamilton wrote to Mr. Hoare: “Miss O’Neill is greatly admired and followed. I have not seen her here; not that I am quite so puritanical as to say I would consider it a sin to go, but my habits are formed, and it is hard to change them. I allowed William to go, as he was very anxious to see her in the character of Juliet in *Romeo and Juliet*; I considered him of an age when a forced restraint would be injurious, and the frank gratification of his desire might give him more delight, and yet not tend to excite a desire for habitual indulgence in such amusement. He has read every dramatic author; and particularly, and with a critical discernment, the works of Shakespeare. He has a natural taste for the drama, and was of course much delighted at the exhibition and brilliant display of the histrionic talent of so justly eminent an actress as Miss O’Neill. It happened on his birth-day; and the following day my friend Mr. Steven of London was to arrive, and amongst other arguments (too numerous to insert in a play-bill) for the expediency of granting his petition, he used two, viz., that as it was his birth-day he should have to record that he commenced an important year of his life with witnessing for the first time that display of talent which he had from his earliest age so much delighted in practising without the benefit of a model; and next, that if he delayed till the next day, Mr. Steven’s arguments and hatred of the stage might stagger his mind and deprive him of the gratification he so much wished for, but the knowledge of which might pain Mr. Steven’s weak mind.

“... William is all I could wish or desire. He has been with me ever since. I am trying to brush him up, so as to unite a little of the gentleman and man of the world with the accomplished scholar. He is wonderfully tall, even since you left this, and

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and *The Peerage*, [www.thepeerage.com/p29928.htm#i299279](http://www.thepeerage.com/p29928.htm#i299279) [Websites accessed 08 Aug 2015]. The further importance of this piece of information is that by calling Hamilton “impressible” and his later passions next to his “keenest joys” causes of his “sharpest sufferings”, Graves lays a small, but dark veil over the biography, a hardly noticeable foreboding of doom. A few words about a first idea of a passion as most people experience would have sufficed here.

<sup>24</sup> [Graves, 1882, pp. 61-62]. On the 1<sup>st</sup> of July 1819 German mathematician and physicist Johann Georg Tralles (1763-1822) discovered ‘the great comet of 1819’ which would be named after him.

<sup>25</sup> [Graves, 1882, p. 62]. See for Miss O’Neill also footnote 27 on p. 10.

begins to assume the manners of a man, with the simplicity and modesty of a boy. He has had, what I never had, the advantage of a father's care, advice as of a companion, and expostulation without austerity.<sup>26</sup> He has had the advantage of the free communication of a father's experience in every changing scene of life, from youth upwards; he has had every sunk rock, upon which the youthful mariner may make shipwreck, accurately traced on the chart of his voyage; and what an advantage that is can be conceived by those only who recollect the bulges their own vessel sustained for want of such a chart, or for want of looking to it with attention. The absolute advantages, I trust, he may prove; be that as it may, I am already rewarded in the success that has hitherto attended my parental affection and care, and by the consciousness of having so far discharged one of the greatest moral duties, as well as by the reflection that I have left my son in that state of mature initiation in every principle of honour and justice, that, with his own talent, unless abused, must ensure his own success, and render him an honour to himself and to his country, and a comfort and a blessing to his family and friends. I need not urge on you to attend to your son. I am sure you and Mrs. Hoare will unite in every step that is proper for securing to him the best education and the best advantages; still recollect, you cannot do so too soon or too early; William is a proof of the great advantage of early attention; but for that, and that incessantly kept up without the appearance of task work, what might he not have been in opposition to what he is? No property in money is equal to such advantages, or can compensate for their neglect."<sup>27</sup>

Indeed, Hamilton's father sounds proud and thoughtful concerning his son, and reading his letters he seems to have had more influence on him than expected when reading Graves' biography superficially; either they had seen more of each other than appears from the letters, or they talked much in the years they did have close contact.

In August 1819 Hamilton returned to Trim while his sisters Grace and Eliza were in Ballinderry in the county of Antrim. "Eliza and Sydney had been in the previous spring [of 1818] committed by their father to the charge of their maternal aunt Susan, who was the wife of the Rev. John Willey, Moravian minister of that place, and Grace had gone there on a temporary visit. [Hamilton's] attention was now a good deal directed to theological reading. On Ascension Day, before his visit to his father, he had been awarded the first premium given by the Association for Promoting Christian Knowledge, at a public examination, and soon after his return to Trim the prize was publicly conferred upon him in church, in the shape of a handsome Book of Common Prayer, accompanied by a copy of Paley's *Natural Theology*. [...] He had now begun to cultivate the society of the Muse. Besides others, [letters to his sisters] make mention of 'a short Poem on Society', which records his conviction of the superiority of the female sex as entertaining companions, and one on Winter, assigning his 'Reasons for preferring Winter to the other Seasons.'"<sup>28</sup>

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<sup>26</sup> Graves remarks: "The expostulations mentioned in [the letter to Mr. Hoare] would appear from a letter from Grace to her father to have been prompted by her brother's not sufficiently thoughtful execution of some shopping commissions entrusted to him by his sisters, but about which his own letters show him to have taken a great deal of trouble; doubtless, however, business of this kind was irksome to him, and probably was not well performed."

<sup>27</sup> [Graves, 1882, pp. 62-64]

<sup>28</sup> [Graves, 1882, pp. 63-65]

### The last letter

The last letter Hamilton's father ever wrote to his son, in September 1819, contains much advice which seems to be recognizable in Hamilton's later life. Graves writes: "This last letter of his father begins with an expression of satisfaction that his son shows himself bent on improvement, through labour of a systematic character. He insists strongly on the necessity of system and regularity in everything, touchingly advertent to his own want of early advice on this point. "I have always told you candidly the defects I have had to lament in myself, that you might be warned by the experience of an old mariner to avoid those sunk rocks which proved so injurious to my voyage, which otherwise might have been most prosperous. I had not the advice or advantages you have experienced."<sup>29</sup> I had no pilot but my own judgment. I was so much of a seaman as to keep my boat above water, but I have suffered much and often from the presumption and credulity I placed in my own judgment."

It seems obvious that Hamilton's father was not writing about "system and regularity" in daily life or living healthily, something Hamilton periodically would not adhere to, but in working towards, and maintaining, a profession through systematic labour. That is something Hamilton seems to have taken to heart; he always worked on his mathematics with a goal and a strong focus and he loved laboriousness.<sup>30</sup> And his father's remarks about too much trust in his own judgements may have helped Hamilton to maintain a healthy doubt towards his own; acting upon good advice from friends was something he could throughout his life.

Archibald Hamilton continued: "I have no objection, but quite the contrary, to your improving yourself in both the art of swimming, and every other pastime and recreation and manly sport that can tend to improve your health and invigorate your body, without debasing your mind or injuring your morals. It also affords me satisfaction to think that you pursue your Astronomical researches; it is a grand pursuit: but recollect you must not seek to be wise above measure, or to found on your researches theories inconsistent with the system of Astronomy, and the account of the Heavenly Bodies which He who created them, and this earth, and us, has been pleased to reveal to us concerning them in the word of his divine and inspired and sublime revelation. You know I allude to some conversation we had on the subject in which I rather curbed you too much, but it was to lead you to reflect, and not to put forward, with the pedantry and dogmatic spirit of the Scholastic, new tenets, in my mind not revealed, and which, if dwelt upon by an unlearned man, would lead him to doubt of the reality and truth of the Divine Mission and Atonement of our Lord and Saviour for the inhabitants of this speck of His Creation; at least I would say that, in my judgment, all those great and deep mysteries should be entered upon with great fear and humility, and in very select society indeed. Still I would not have you suppose that I would wish to stem the current of Philosophical research; only let your communications on those subjects be in the first instance with men of letters and science, and men who submit with reverence to the Divine Authority of Scripture. "Throw not your pearls before swine," nor encounter unprofitable argument with unlearned men, nor wound the prejudices of the weak, nor risk your strength with the infidel on points not necessary, until at least you become, like David, a match for any

<sup>29</sup> [Graves, 1882, pp. 68-69]. Archibald Hamilton lost his father when he was only five years old, uncle James was seven then.

<sup>30</sup> See p. 43.



Goliath. Avoid always any discussion connected with Scripture which you feel you maintain more to display your own mental powers than to propagate truth, elucidate difficulties, or convey conviction on practical subjects.”

Indeed, Hamilton seems to have taken many parts of his father’s advice to heart: struggling all his life to remain humble, which can be seen throughout Graves’ biography; not being wise above measure; not discussing important matters chiefly to display his mental powers, something also his uncle James had been aware of. It can, for instance, be recognized in Hamilton’s letters around the time that friends converted to the Roman Catholic Church in the 1850s, when Hamilton more than once mentioned not wanting to enter into theological discussions. It even seems to have held more generally as can be seen in the descriptions of Hamilton’s character.

Graves continues: “He adds some sensible remarks in the nature of verbal criticism applied to letter-writing, and concludes with a P.S., “Write soon and fully before I leave town, and do not fear to express yourself candidly, or to differ from me, only give me your reasons. The accounts of and from your sisters are very gratifying. I shall write to them and your uncle to-morrow. I do not forget any of you.””<sup>31</sup>

### His father’s death

Archibald Hamilton “was at this time on the eve of his second marriage; this he knew; he did not know that he was almost as near to the day of his death; and yet there seems something like the delivery of soul and affection of a man going to encounter a fatal danger, something testamentary, in the outpourings of earnest advice, which from May to September, at the cost of much time and labour, he devoted to the future welfare of his children. The lady to whom he was engaged, a widow, named [Anne Pollock] Barlow [(.. -1823)], had left Booterstown, where his children had become acquainted with her, in order to obtain in London surgical advice for her son. Thither, a few days after writing the letter last quoted,<sup>32</sup> Archibald Hamilton followed her, and there the marriage took place on the 11th of October. On the 23rd of the month he arrives in Dublin with his wife, and William is soon invited to accompany his uncle and aunt in a visit to them. This he desires to do out of affection for his father, but in reference to his studies he also expresses his desire that his visit may not outlast a day or two. It is probable that his visit took place and was as short as he wished.”

Archibald Hamilton died in December while Hamilton’s eldest sister Grace was “in her father’s house [...]. She had very soon to summon her brother again to quit his studies and return to Dublin. It was not for the meeting of the whole family at Christmas, which in writing to Eliza he had recently counted on, but to aid her in watching the serious illness of their father. At first they were hopeful of its being overcome, but these hopes soon vanished, and they had the mournful experience of

<sup>31</sup> [Graves, 1882, pp. 69-70]. For Hamilton’s humbleness see for instance p. 65, for uncle James’ warnings see p. 50. For refraining from discussions see for instance letters to De Morgan, [Graves, 1889, p. 407], [Graves, 1889, p. 443], and to De Vere (1814-1902), [Graves, 1889, p. 35]. For Hamilton’s character see section 2.4.

<sup>32</sup> The last letter, from September 1819. The death year of Anne Barlow can be found in *The London Gazette*, 18 April, 1919, (31302): 5085. Her son was Joseph Pollock Barlow (.. -1886). After Archibald’s death Hamilton’s half-sister Annabella (1820-1895) was born; she married, in 1847, Francis Joseph John Aglietta, who disappeared in 1848. [Graves, 1882, p. 2], [Graves, 1882, p. xix]. [www.thegazette.co.uk/London/issue/31302/page/5085](http://www.thegazette.co.uk/London/issue/31302/page/5085) [Accessed 01 Nov 2014].

tending him without recognition. William, however, had the satisfaction at last of hearing his father, in an interval of consciousness, say to himself, apparently in reference to their presence, “I certainly have nothing now to complain of,” words which were a consolation to their hearts.”<sup>33</sup>

## Losses

Regardless of how extremely intelligent Hamilton was, being separated from his parents as a toddler and losing his aunt and his parents at a very young age, his father even after such a short but intense period of contact, will have left marks on Hamilton’s personality. His strong bonds with his sisters, especially with Eliza, as well as the facts that, reading Graves’ biography, he seems to have found it very hard to be alone and to have been more anxious than others if people close to him were indisposed or ill,<sup>34</sup> could very well be results of the separations and losses in his youth.

But in those days there was not much which could be done about psychological problems, psychology as we know it did not yet exist then, people had to make do with the good advice of family or friends, or clergymen. And, as was mentioned before, that is something Hamilton was capable of; throughout Graves’ biography it can be seen that he had “confidant(e)s” and received advice or counsel from them, or from people around him, and he often took it to heart.

## 2.3 Romanticism

Hamilton saw himself both as a mathematician and a romantic; in 1830 he wrote that he hoped that “if my scientific works should cause me to be remembered, and enable me after my death to influence the minds of men, my poems may perhaps survive to show that I had not been quite a harsh and rugged being, nor quite insensible to feelings of gentleness and beauty.”<sup>35</sup> Wanting his romantic side acknowledged is not surprising for someone being born in 1805, in the middle of the Romantic Era, some thirty years after the publication of Goethe’s *Die Leiden des jungen Werthers*, in which the main character commits suicide after having lost his beloved one.<sup>36</sup>

<sup>33</sup> [Graves, 1882, p. 71], [Graves, 1882, p. 74]

<sup>34</sup> See for instance p. 142, p. 179, p. 208. In 1851 Hamilton wrote in a letter to De Morgan: “I am not such an inveterate sonneteer as you seem to suspect me of being, at least as to quantity, for I only composed four this year, and they were called forth by the death of the late Lord Northampton [(1790-1851)], with whom I had long enjoyed what might be called, and what in fact he did call, intimacy; while yet we were sufficiently far separated, by rank and fortune, and even by our living habitually in different parts of the world, to prevent that crushing sensation of disaster, which has hindered me from ever writing any verses on the death of any blood-relation of my own.” [Graves, 1889, p. 302].

<sup>35</sup> See p. 89. In the late 1700s, and a large part of the 19<sup>th</sup> century, Romanticism influenced art and literature, in a reaction to the Enlightenment. This intellectual movement had followed the Scientific Revolution, which started in 1543 with Copernicus placing the sun in the centre of the solar system, and had resulted in the publication of the *Principia Mathematica* of Newton in 1687, developing a mechanistic worldview. In the eyes of the Romanticists science deprived the world of mysticism, by explaining ever more natural phenomena. The idea of being regarded as a “cold scientist” must have been horrific in Hamilton’s eyes, see also p. 318.

<sup>36</sup> Hamilton was young and in love at the height of the Romantic Era, which can roughly be taken as the period 1810-1840.



An example of romanticism as a direct response to the scientification of the prevailing worldview was the novel *Frankenstein*, written by Mary Wollstonecraft Shelley (1797-1851) in 1818 when Hamilton was thirteen; in the story the making of the ‘creature’ is used as a fearful example of science taking over human life and thereby destroying it.<sup>37</sup> The most well-known painting of the suicide of Thomas Chatterton (1752-1770), the brilliant yet then unrecognized poet who killed himself in absolute poverty, thereby becoming a “martyr of materialism”,<sup>38</sup> was painted in 1856 when Hamilton was fifty-one. The Romantic poets Wordsworth (1770-1850), who was Poet Laureate from 1843 until his death and a friend and correspondent of Hamilton, and Coleridge (1772-1834), who was revered by him,<sup>39</sup> wrote about Chatterton, and whether or not Hamilton saw himself as a poet, he did write much poetry; Graves’ biography is larded with Hamilton’s poems.

## 2.4 Comments on Hamilton’s character

It can not be known for sure if Hamilton was mostly happy or not. Yet, reading his letters, and reading people’s descriptions of him, despite melancholy periods in his younger years and some distressed and troublesome periods later in life, he actually seems to have been, next to extremely intelligent, a lively, genial and very direct person. That did not mean that he was dominant; while describing the first years at the Observatory, when Hamilton’s three sisters Grace, Eliza, and Sydney also lived there, Graves mentions that “Hamilton was no monopolist of talk, even when he shone most brilliantly, either at home or in outer society.”

De Morgan wrote in his obituary: “Hamilton was a man who combined different talents to an extent which is often attributed, by exaggeration, to the possessor of one powerful faculty; but in his case there is abundant evidence. He was scholar, poet, metaphysician, mathematician, and natural philosopher. Highly imaginative and fluent of tongue, he was an orator in all that he knew; even in mathematics, to the details of which he could give almost a rhetorical cast in a letter. In metaphysics he was very well read, and could talk in a way which suggested to [the poet] Southey [(1774-1843)] a comparison and a difference. Hamilton one day preached to Southey on this subject, until the latter remarked, as they passed a ploughman, “If you had been Coleridge, you would have talked to that ploughman just as you have been talking to me.” [...] Hamilton was once called the Irish Lagrange, and the comparison was a good one. The styles of mathematicians differ as much as the styles of poets; and Hamilton is distinguished by that power over symbols, combined with elegance of expression which is so remarkable in the writings of Lagrange.”<sup>40</sup>

<sup>37</sup> Shelley, M.W. (1818), *Frankenstein; or, the modern Prometheus*. London: Colburn and Bentley. It can be read online, <https://archive.org/details/ghostseer01schiuoft>, in an 1831 edition where the ‘creature’ is depicted on p. vi. He does not look as horrific as he would in the famous 1930s films yet frightening in another way; “his yellow skin scarcely covered the work of muscles and arteries beneath,” and he opened a “dull yellow eye”. See p. 43 of the book.

<sup>38</sup> According to the website *Poetry Foundation*, Thomas Chatterton “seemed to his great Romantic successors most to typify a commitment to the life of imagination. His poverty and untimely suicide represented the martyrdom of the poet by the materialistic society of his time.” [www.poetryfoundation.org/bio/thomas-chatterton](http://www.poetryfoundation.org/bio/thomas-chatterton) [Accessed 01 Nov 2014].

<sup>39</sup> [De Vere, 1897, p. 200], [De Vere, 1897, p. 315]

<sup>40</sup> See p. 82, [Graves, 1889, p. 217], [Graves, 1889, p. 219].

About Hamilton's extreme intelligence one of Graves' brothers, the mathematician and clergyman Charles Graves (1812-1899), wrote in his 1865 *éloge*: "[Hamilton] seems to have possessed a higher power of divination – an intuitive perception that new truths lay in a particular direction, and that patient and systematic search, carried on within definite limits, must certainly be rewarded by the discovery of a path leading into regions hitherto unexplored." And in 1850 De Morgan beautifully summarized the combination of Hamilton's brilliance and modesty; De Morgan was not always on good footing with Hamilton's namesake Sir William Hamilton of Edinburgh and wrote to Hamilton: "When I send a bit of investigation to Edinburgh, the W. H. of that ilk says I took it from him. When I send you one, you take it from me, generalize it at a glance, bestow it thus generalized upon society at large, and make me the second discoverer of a known theorem. He cuts my legs off; you make a pair of legs grow out of my head, and turn me upside down to stand upon them."

According to De Vere, a "quality which belonged pre-eminently to him was his absolute absence of all disguise. Some one remarked of him: "Hamilton is simply transparent; his thoughts are as visible to you as the leaves of a tree close by and sun-smitten. It would be impossible for him to tell a lie even if he wished to do so, and he could no more conceal a thought than he could tell a lie."" Likewise, in 1835 George Ticknor had, on the morning of Hamilton's knighthood, breakfasted at the Observatory, and next to "pleasant and warm-hearted" he described Hamilton as "very eager, simple, and direct," in which the combination of "simple" and "direct" seems to be closely related to the "transparency". And it was not just due to his youth; in 1855, when Hamilton was fifty years of age, his then new friend John Nichol Jr. (1833-1894) wrote a poem about him which, according to Graves, "dwelt upon the combination in Hamilton of simplicity and affection with high scientific qualities." It must be remarked though that although it is very hard to imagine Hamilton really telling a lie, truthfulness having been very important to him, his "transparency" did not mean that he was literally unable to keep thoughts for himself. He certainly could do that if he thought that would be better or necessary.<sup>41</sup>

Hamilton was extremely polite; after his death his sister Sydney told Graves that "a young lady, who was living with me in Dublin at one time said, "I never saw so polite a gentleman as your brother; I think he would almost bow to a cat;" and I reminded of her and amused him by repeating this to him one day, when accidentally he did tread upon the cat's paw, and turned round, and smiling said, "I was going to say, I beg your pardon."" Another story is told by De Morgan in Hamilton's obituary, and cited by Graves in the third volume of his biography: "He thought much of the comfort of others, and lightly of his own. When some housebreakers were caught on the premises, and detained until they could be carried before a magistrate, he amused his family by directing that the felons should be asked whether they preferred tea or milk for breakfast." Graves comments: "A full memoir of his private and public life would present a genial combination of intellectual greatness, moral goodness, and piquant peculiarity of thought and manner, all brightened by never-ceasing benevolence of feeling, and toned by rare gentleness of manner."<sup>42</sup>

<sup>41</sup> [De Vere, 1897, p. 41], [Graves, 1885, p. 154], [Graves, 1885, p. 157], [Graves, 1889, p. 220], [Graves, 1889, p. 286], [Graves, 1889, p. 21], p. 191, p. 291. For Mr. Ticknor see footnote 2 on p. 2, for the poem see p. 312.

<sup>42</sup> [Graves, 1889, p. 236], [De Morgan, 1866, p.132], [Graves, 1889, p. 218]

Sydney also told Graves a story about Hamilton and Lizzie, “a sweet little girl of weak powers.” Lizzie had lived in an ‘Institution for Idiots’, but not getting better she was placed under Sydney’s care; she recognized Lizzie as “not idiotic” although “far, far behind even common intellects in many respects.” One day Sydney had brought Lizzie with her to the Observatory; “I left her in the drawing-room and went up with Helen [Eliza] to her room, and we stayed there talking, I knowing well that Lizzie would remain quietly below till I went down: but after a time a message came up to me that Sir William sent to tell me “that he was now obliged to go to his library and Miss Lizzie would be alone;” he could not bear to be unpolite even to her. Of course I went down at once to ease his feelings, not the dear child’s. He told me that he had played a game on the Icosian board with her, and “though of course I saw that she did not understand it,” said he, “yet I assure you that many a duchess could not have carried it off so well.” [...] I listened to the truthful humble words of that Giant in Intellect, and thought of the pitiful sneers that poor nobodies would give at the idea of sitting down to play any game with poor Lizzie.”<sup>43</sup>

### Hamilton and Ireland

In his 1866 obituary De Morgan wrote about Hamilton: “Hamilton was not only an Irishman, but Irish; and this with curious oppositions of character. He was a non-combatant: there was too much kindness in his disposition to allow any fight to show itself. Impulsive and enthusiastic, with strong opinions and new views, he was never engaged in a scientific controversy. [...] William Rowan Hamilton’s preservative was his dread of wounding the feelings of others. [...] One person, who must not be named, wrote against him in an ignorant manner; and for once he replied, and pointed out how unfit his opponent was to be a critic. But afterwards, and long afterwards, he spoke with great remorse of his proceeding: “He found,” he said, “that he had hurt the man’s feelings;” and he exerted himself to get a pension for the widow. He had a morbid fear of being a plagiarist; and the letters which he wrote to those who had treated like subjects with himself sometimes contained curious and far-fetched misgivings about his own priority. But, with all this, there was a touch of the national temperament in him. An Englishman who never strikes, can, nevertheless, clench his fists, which the most warlike Frenchman cannot do: an Irishman who never gets into a row may give quick but quiet symptoms of opposition of opinion, and of what, were it more than a rudiment, would be called pugnacity. We may seriously illustrate this by Hamilton’s first thought, on seeing the commencement of a bit of verse written in the visitor’s book at Glendalough: – “From soft Shillelagh’s shady vale come down –” “*Soft* shillelagh!” said he: and he took his pencil and added, “Hard sticks on many a bald and tempting crown.””<sup>44</sup>

Although Hamilton revered the Queen, he loved Ireland as his home. In October 1837 he wrote to the Marquess of Northampton: “Perhaps I told you of the pleasant

<sup>43</sup> [Graves, 1889, p. 235]. In the Autumn of 1856 Hamilton had invented his Icosian Game, in which one has to find a path along the edges of a dodecahedron such that every corner is visited only once. “Hamilton intended one person to pose the puzzle and a second person solve it.” For the description and further images see The Icosian Game, <http://puzzlemuseum.com/month/picm02/200207icosian.htm> [Accessed 28 Nov 2015].

<sup>44</sup> [De Morgan, 1866, p. 131]. Shillelagh is a city in County Wicklow, Ireland, but, according to the *Oxford Dictionaries*, [www.oxforddictionaries.com](http://www.oxforddictionaries.com), it is also “A thick stick of blackthorn or oak used in Ireland, typically as a weapon.”

visit which I lately made to Lord Adare, at Dunraven Castle, in South Wales. It was on my return from that visit, while travelling through some of the most beautiful parts of Wales, and the adjoining counties of England, that I conceived and composed a Sonnet which I venture now to write down, and to send along with this letter.”<sup>45</sup>

England, forgive me, if while yet within  
 The imperial Isle, supreme o'er earth and sea,  
 My spirit often fondly turn from thee,  
 Nor all thy loveliness and grandeur win  
 My charmèd fancy, that it not begin  
 To picture often other scenes for me,  
 And other sights, the wealth of memory,  
 To the outward eye long lost in distance thin.  
 I love thy glory, England! sudden tears  
 Of an unenvying admiration start,  
 Not seldom, as thy radiant form appears,  
 And the world's stage presents thine honoured past:  
 But Ireland is my birth-place; there youth's years  
 Were passed; my home is there, and there my heart.

And many years later, in 1855, Hamilton wrote to Mrs. Jane Wilde (1821-1896), the politically engaged poet ‘Speranza’, “[I am] essentially an Irishman by birth, and life, and labour, though educated by a clergyman who held the ascendancy principles (from which, by very slow degrees, I have been through life gradually emancipating myself), and who would have regarded repeal as rebellion. It was English history, not Irish which I was taught; and my heart still throbs with sympathy for that great British Empire to which, from childhood, I have been accustomed to consider myself as belonging as to my country – though Ireland, as Ireland, has always been the object of my love – and, I think you will admit, of my exertions.”<sup>46</sup>

### 2.4.1 A labour-loving and truth-loving man

In his 1866 obituary De Morgan commented on the way Hamilton worked: “Hamilton was apt to work by fits and starts. He has been known several times to work fourteen hours in one day, standing nearly all the while;<sup>47</sup> but there were intervals of

<sup>45</sup> Edwin Wyndham-Quin (1812-1871), Lord Adare, was the 3<sup>rd</sup> Earl of Dunraven and godfather of William Edwin, Hamilton's eldest son. He lived at the Observatory from February 1830, when he was seventeen years of age, until November 1831, to be educated in astronomy. According to Hamilton they were related; in 1852 he wrote to De Morgan that “Lord Adare, now Dunraven, is a distant connexion of mine – fifth cousin by my mother's side.” [Graves, 1889, p. 336], see also [Graves, 1882, p. 589]. The poem can be found in [Graves, 1885, pp. 209-210].

<sup>46</sup> [Graves, 1889, p. 26]. The ascendancy principles alluded to the domination of Ireland by protestant landowners. For the repeal, see footnote 8 on p. 95.

<sup>47</sup> This may sound unusual, but also De Vere read standing; in his *Recollections* he writes that when he was seventeen, “I had happened to say to my father, ‘I suppose every one knows that Byron is the greatest modern poet?’ He answered very quietly, ‘I do not know it.’ ‘Then who is?’ He replied, ‘I should say Wordsworth.’ ‘And, pray, what are his chief merits?’ He answered, ‘I should say, majesty, and pathos, as, for instance, in his ‘Laodamia.’” I read ‘Laodamia’, standing, to the last line, and was converted. I seemed to have got upon a new and larger planet, with “An ampler ether, a diviner air, And fields invested with purpureal gleams.”” [De Vere, 1897, p. 60]. Reading ‘Laodamia’ will not have taken fourteen hours though.

comparative inaction ... Sometimes a letter was written and copied which was not sent for months, and then only the first sheet, with promise of the rest. It has even happened that the letter was knowingly never forwarded at all, and that when, long after, he found reason to wish to send it, he could not find it and sent the copy instead. But with all this he made more notes than anyone, and was exceedingly particular about minute accuracy of points, crosses, and dates in the most trifling memoranda.”

In the third volume of Graves’ biography, after the chapter with letters of condolence to Lady Hamilton, Graves gives “omitted items”, either overlooked or not having a natural place in the biography, and among them are some further descriptions of Hamilton’s character. One of these “omitted items” is a letter to De Vere of 1842, in which Hamilton mentioned to recognize himself in a poem,

This life, and all that it contains, to him  
Is but a tissue of illuminous dreams  
Filled with book-wisdom, pictured thought, and love  
That on its own creations spends itself.  
All things he understands and nothing does.  
Profusely eloquent in copious praise  
Of action, he will talk to you as one  
Whose wisdom lay in dealings and transactions;  
Yet so much action as might tie his shoe  
Cannot his will command; himself alone  
By his own wisdom not a jot the gainer.  
Of silence and the hundred thousand tilings  
'Tis better not to mention, he will speak,  
And still most wisely.

Graves comments: “There was doubtless some ground for applying such a description to himself, however he may have laughingly felt that in such application it was a caricature, and we may remember his noting in early life that he was conscious of having, like Coleridge, too much of the element of “pathos” in his mental constitution; but it is also true that, when there was an adequate call upon him for the exertion, he could display much practical ability.”<sup>48</sup>

According to Graves as “a more adequate estimate of [Hamilton’s] character” than the poem, he gives a letter to Mrs. Wilde of the 11<sup>th</sup> of February 1858 in which Hamilton described himself: “As to Fame, if it have not been won or earned already, it is not likely that any future exertion will make it mine. But as to the Labour; that is a thing within everybody’s power to judge of, even for himself. I have very long admired Ptolemy’s description of his great astronomical Master, Hipparchus, as ἀνὴρ φιλόπνοος καὶ φιλαλήθης: “a labour-loving and truth-loving man.” – Be such my epitaph!”<sup>49</sup>

Commenting on this letter Graves writes, apparently giving his own opinion, “It may be felt that in the [quotation] here given [...] Hamilton recognised the ideal of

<sup>48</sup> [Graves, 1889, pp. 217-218], [Graves, 1889, pp. 228-229], p. 122. For the poem see [Taylor, 1842, pp. 77-78]. After Mrs. Bayly, Hamilton’s mother-in-law, died in 1837 “one of Helen’s brothers contested the will,” and Hamilton managed by “obtaining an amicable settlement” to prevent “the whole family being exposed by such a paltry squabble.” [Hankins, 1980, p. 124].

<sup>49</sup> [Graves, 1889, p. 230]

a character strong and lofty, the possession of which he was conscious of having habitually aimed at, and of having in great measure attained." He thereby apparently accepts Hamilton's view on his own character, which is slightly remarkable since it does not easily fit in with Graves' opinion about Hamilton as a "sufferer", not having enough control over himself while at the same time being "profoundly subjective".<sup>50</sup> But perhaps Graves did not see it as contradictory; he may have seen Hamilton's "sufferer" side as only applicable in some parts of his life, in the sense of a great man having only a few weaknesses which would not have been a problem if he had had a stronger wife, an idea that seeps through the entire biography.

Also according to his friends Hamilton was a truth-loving man; in his obituary notice De Morgan commented on Hamilton's moral views: "In the matter of right and wrong, Hamilton was very simple-minded. To say he was truthful would be only a part of the truth; his aptitude to entertain misgivings [...] made him often think it right to express his opinions to avoid the possibility of being misunderstood. But it may be said that it was not he and others who differed, but his opinions and the opinions of others; his tolerance was perfect."<sup>51</sup>

In an 1869 article about Hamilton, Ingleby also comments on Hamilton's simple-mindedness yet in a different way: "'Extremes meet,'" says the proverb; and so it happens that the subtle and the simple are sometimes combined. It was so with [Hamilton]. As a rule, all great mathematicians are simple-minded men. We can hardly call to mind an exception. Hamilton used to speak of himself with childlike candour; some might say with excusable vanity; but the phrase would convey a very false impression. On being called "the greatest British mathematician," he earnestly disclaimed the imputation. "I think you flatter me there," said he. "I should say either [Arthur] Cayley [(1821-1895)] or [James] Sylvester [(1814-1897)] is the greater mathematician; but if I am not the greater mathematician, perhaps I am the greater man. It is the combination which, in my case, is extraordinary. I am a poet."<sup>52</sup>

Another "omitted item" concerns the tolerance mentioned above by De Morgan, and Graves comments: "Hamilton's tolerance of opposing opinions [...] was a tolerance not of mere good-nature or indifference. The following extract from a letter to Mrs. Wilde shows that in the subjects by which tolerance is most severely tested, religion and politics, he wisely recognised the true ground for tolerance, namely, the large extent over which persons of good sense and good feeling were at one, however they might differ in religious creed or political party: – "In religion and politics men [...] ought not to think one view as good as another. We must not say, like [Dickens'] *Tooks in Dombey* [and *Son*], it is "of no consequence at all": but each may give his neighbour credit for being as sincere as himself. I think, however, that with most people who do not vigorously shut their hearts against receiving impressions from others, and who mingle at all with the world, or even read pretty freely, there grows up gradually a feeling that for the most essential purposes of life, including thoughts and conduct, people who differ can yet sympathise with one another."<sup>53</sup>

<sup>50</sup> See for instance p. 8, p. 192.

<sup>51</sup> [Graves, 1889, p. 230], [Graves, 1889, p. 218]

<sup>52</sup> [Ingleby, 1869, p. 166]. Unfortunately, Ingleby does not give a year for these remarks, or to whom they were spoken. And Graves finds it "difficult to suppose this to be an accurate report of his words," see p. 247.

<sup>53</sup> [Graves, 1889, pp. 231-232]



## 2.5 A great embodied intellect

About the commencement of the lifelong friendship between Hamilton and De Vere, Wilfrid Ward writes in his biography of De Vere: “The earliest link between [De Vere and Hamilton] was Lord Dunraven’s eldest son, young Lord Adare, who knew Hamilton at Trinity College, Dublin. Adare writes to Hamilton in 1831, describing a conversation with Aubrey de Vere which had lasted from ten to one in the morning, and speaks of him as “very clever and metaphysical,” and as having “a most beautiful, fine, open, countenance.” In the summer of that year, the young poet and the astronomer met, and a lifelong friendship was formed at first sight.”

De Vere writes in his autobiography, *Recollections of Aubrey de Vere*, “It was in the earlier half of September, 1831, that I met first the man of the greatest intellect that I have ever known, and between whom and myself there sprang up what may be called a friendship at first sight, he being then in the twenty-seventh year of his life, and I in the eighteenth of mine. My new friend was Professor Hamilton, better known as Sir William Rowan Hamilton, “Astronomer Royal” in the Dublin University [...].

“It was impossible for the most careless observer not to be struck by him at once. One’s first impression was that he was a great embodied intellect rather than a human being. Wordsworth wrote of Coleridge as “the rapt one of the godlike forehead,” but it could not have been more marvellous than Hamilton’s. The moral expression of his countenance corresponded with the intellectual. What it indicated was, when there was nothing to disturb him, an unbounded reverence. It was as if his constant recollection of what is above us rendered him but half conscious of the things around. The nobility of his forehead, which alone arrested one’s attention,<sup>54</sup> imparted a grandeur to a face otherwise not remarkable. There was also a dignity about him which came from his entire unconsciousness. [...] It need hardly be said that with his habitual reverence there went a corresponding humility as regards himself, and an invariable courtesy in his intercourse with all others. He seemed always to think it likely that he might be mistaken, while in every neighbour, however full of infirmities, it was the human being that he saw, and one invested with all the rights and dignities which belong to humanity. [...]”<sup>55</sup>

“I used to sit up with [Hamilton] till near sunrise, while he held such discourse as, I suppose, was the best compensation I could have had for never hearing that of Coleridge. His mirthfulness, however, was almost as strong as his speculative power. Once, just after he had admitted that some passages in Coleridge’s writings were as obscure as they were profound (adding, however, that by patient attention he had found out the meaning of those passages, excepting one in “Aids to Reflection”)<sup>56</sup>

<sup>54</sup> Hamilton’s forehead must have stood out indeed; after his death Ingleby wrote: “The brain of Hamilton was enormous. The forehead, inadequately shown in [his] portraits, was broad and massive. The eye was full and imaginative, and the orbits protruded with phrenological power, giving hints of linguistic, artistic, and mathematical talent.” [Ingleby, 1869, p. 176].

<sup>55</sup> [Ward, 1904, p. 6], [De Vere, 1897, pp. 39-41]

<sup>56</sup> *Aids to Reflection* is an 1825 theological work by Coleridge. In June 1831 Hamilton remarked: “Coleridge in his preface to his *Aids to Reflection* announces it to be one of his objects in that work, “to substantiate and set forth at large the momentous distinction between Reason and Understanding.”” [Graves, 1882, p. 437]. The *Aids* can be read online: <https://archive.org/details/aidstoreflectio01marsgoog>.

I answered: "I know a lady who seems to have found no difficulty in his works, – Mrs. —, that very gay and fashionable person you met lately. She spoke of the *Aids to Reflection* and I replied that it was a great book, I believed, but a long and difficult one. She answered, "I will take it up to my room after breakfast." She did so; brought it down at luncheon time, and told me she had read it, thought it a very pleasant book, and had found nothing difficult in it." He laughed till he could no longer stand.<sup>57</sup> I early observed that his abstracted habits, while they kept him as ignorant of the world as he was indifferent to it, did not prevent his occasionally exercising a keen, if fitful, appreciation of character. He would refer to past incidents, which at the time he had not seemed to remark, with a singular, though never uncharitable, insight. His absence of self-confidence, as regards judgments on all subjects, was indicated by some unconscious modes of expression such as "I seem to myself to think." [...] One of the things most remarkable in Sir William Rowan Hamilton was the combination of qualities mental and moral, seldom united. [...] His combination of the mathematical gift with that for languages, and of both with the meta-physical, was a [rare] union."

Another example of Hamilton's half-consciousness of the things around is given by Wayman in his book about Dunsink Observatory; he cites E.T. Whittaker (1873-1956), Royal Astronomer of Ireland between 1906 and 1911: "When I held Hamilton's chair, to which I was appointed in 1906, many years after his death, I met many people who had known him. The countryside was full of stories about him. One of them concerns his administration of the 17 acres of farmland around Dunsink Observatory. Hamilton knew nothing of farming, but in order to supply his household with milk he bought a cow. After some time, in the ordinary course of nature, the yield of milk began to fall off. Hamilton went to consult a neighbouring farmer. The farmer said that the cow was suffering from loneliness. Thereupon Hamilton inquired whether it would be possible to provide her with companions, and the farmer graciously agreed, in recognition of a payment by Hamilton, to allow his cattle to graze on the rich pastures of Dunsink." Realizing, as Wayman remarks, that the Observatory was situated within the farming community of Castleknock and Abbotstown, his neighbours must have regarded him as a very unworldly professor.<sup>58</sup>

### Formality, or "love for order"

Graves comments on Hamilton's modesty and formality, "I have called him profoundly modest, and so he was if modesty be construed as a tendency to rate himself as lowly as he justly could in comparison with others, and to cede to others the priority when duty of some sort did not oblige him to claim it for himself: but with that modesty was joined a self-respect as genuine, a sense of his own individuality and of his duty to maintain it in the possession of all its inherent prerogatives: and so also it is true that while he was perfectly natural, and ready impulsively to join in innocent freaks or caprices, he was also habitually formal with a formality which

<sup>57</sup> De Vere does not give a year in which this happened but he kept to his ground; in 1835 he wrote to Hamilton: "Is it not singular that the ladies of the family should in most instances take very kindly to the said *Aids*, while the men profess to find a great part of the work unintelligible, the rest of no value and practical importance; and the whole indemonstrable, as they say, and therefore worthless as philosophy?" [Graves, 1885, p. 131].

<sup>58</sup> [De Vere, 1897, pp. 41-42], [Wayman, 1987, p. 63]



sprang from his deep value for law in all things: he loved order and coordination and subordination and symmetry and completeness; and this love pervaded all his mathematical work.”

In a letter to his sister Grace in 1831 Hamilton gave an explicit reason for his formality; although it was, as can be seen in this letter, perhaps not so much his “deep value for law in all things” or even a love for order itself, it did concern his “genuine self-respect”. He had trouble to call his pupil, who was seven years his junior, ‘Adare’, instead of ‘Lord Adare’, and describing a dinner which was also attended by Adare’s sister he wrote: “Lady Maria [(1814-1855)] [...] took the opportunity to do what she had promised her brother more than a year ago, that is, to tell me how much he wished that I should not call him Lord Adare. I told her with truth, that to the formality of my nature it would require a special effort every time, if I were to try to call him Adare; but she quite earnestly begged me to make the trial, and said she would fix on some private sign to remind me when I went wrong. After all, I have not yet brought myself to say Adare; but at least I have avoided the hated Lord, for I have not named him at all. It is possible, you know, to be long in the same house with a person with whom you are intimate, and yet never to address that person by any name. My reluctance to call my pupil and friend, whom I know so intimately and love so dearly, by the name by which his other friends usually call him, is scarcely a rational feeling, and, on my best efforts to analyse it, appears to arise from an habitual pride. When I know that another person is decidedly superior to me in rank, and when custom has established a certain form of acknowledgment of the superiority, it seems to me that I had better persevere and mark my real independence by using this form, than by omitting it on the ground of intimacy. For while one’s forms of expression are no other than all may use, they cannot be affected by any future coolness; and no privilege having been accepted on the one side, there is none which can be withdrawn on the other. In waiving this proud guardedness in my future intercourse with my pupil, as I shall certainly endeavour to do, I shall be compelled to do a violence to the secret but habitual union of caution and haughtiness in my nature, that will unequivocally prove the strength of the confidence and affection which I feel towards him, and which he has so well deserved at my hands.”

Indeed acknowledging the request, Hamilton started his next letter to Adare writing: “My dear *Adare*,” but in the following letter he made a slip of the pen again and wrote: “My dear ~~Lord~~ Adare (You see at the very outset of my letter the effect of old habits and of recent instructions).”<sup>59</sup>

It thus can, cautiously, be inferred that Hamilton generally felt more comfortable when complying to rules and regulations, and that it was that inner comfortability which Graves recognized as his “love for order”.<sup>60</sup> Indeed, mentioning Hamilton’s “love for order”, Graves adds that this included “also subordination of ranks and supremacy of civil law.” An example thereof can be seen when, in 1861, according to Graves, “he received from the Vice-Chancellor [...] a notification that the Council of the Senate of the University desired to confer upon him, “as a mark of their respect and esteem,” the honorary degree of Doctor of Civil Law. Having been in 1845, after the meeting of the British Association, admitted by the same University to the *ad eundem* [same] degree of Doctor of Laws, Hamilton at first felt uncertain whether

<sup>59</sup> [Graves, 1882, pp. 450-451], [Graves, 1882, p. 458]

<sup>60</sup> This is not the same as adhering to social conventions, something Hamilton often did not.

he was free to accept the proffered honour. He thus states his difficulty in a note to his friend Dr. [John] Anster [(1793-1867)]: – “I remember kneeling as a Candidate Doctor of Laws before the Vice-Chancellor of the time: is it lawful that I should kneel again for a degree no higher?” [...] He laid these facts before the Vice-Chancellor [...]. The reply was: – “The Degree which you took is not the same in point of fact which we offer you, and therefore I hope you will be able to accept it.”” Hamilton answered: “Under your sanction I now accept the offer of the additional degree of D.C.L., which I shall very highly prize.”<sup>61</sup>

And also Hamilton’s formality, described by Graves as a “tendency to rate himself as lowly as he justly could” and which could be regarded as modesty, can be seen in the light of his “love for order”, even if it was not so much a love for order itself as was argued before, since Graves added: “in comparison with others.” Indeed, Hamilton’s “love for order” did mean that it also held for people of a lower social status than his; they were also expected to adhere to the rules with regards to him. And that, contrarily, sometimes seems even harsh.

Such harshness can be found in a letter to De Vere after they had visited the Botanic Garden of Glasnevin together in June 1837. Hamilton wrote, after having mentioned Dr. Litton (1781-1847), the then appointed botany professor, to be “an educated gentleman, and a philosophical botanist” and the Curator to be “indulged with the title of Curator, and imagining himself entitled, on the strength of that Latin word, to set himself up as equal to the Professor:” “I was induced to attend a Meeting of the Royal Dublin Society<sup>62</sup> [...] having, as an honorary member, a right to speak, though not to vote. After all, I spoke only about five minutes; but I produced some sensation when (without mentioning your name) I sketched our recent visit to the Garden, and described the moment when, my friend [Litton] having desired a leaf of a particular plant to illustrate a discussion or conversation on the philosophy of Botany, I observed the Professor request *permission* to cut it, from a person whom I supposed it was thought unfashionable to call the Gardener!”<sup>63</sup>

Hamilton’s strictness therein can be seen in his dealing with his astronomy assistant, Charles Duncan Thompson (ca 1794-1876); having succeeded Brinkley as the Astronomer Royal in 1827 but before actually moving into the Observatory Hamilton made a journey which lasted about three months. Before he left Hamilton had told Thompson that “he could let his cow graze on the lawn as long as he did not touch the hay.” Temporarily being back in Dublin to prepare for the second part of the journey and to visit the Observatory, he wrote to Cousin Arthur: “I told [Thompson] that I only allowed [his cow on my lawn] during my absence, and that I would not continue to do so. I did not consider him as having been at all diligent while I was away, but thought that there was no use in taking notice of it until I return to take active

<sup>61</sup> [Graves, 1882, p. 451], [Graves, 1889, pp. 131-132]

<sup>62</sup> “For the promotion of Husbandry and other useful Arts in Ireland.” [Graves, 1885, p. 181].

<sup>63</sup> [Graves, 1885, pp. 202-203]. See for the visit p. 186. The Curator then was Ninian Niven (1799-1879): “In 1790, the Irish Parliament[...] granted funds to the Dublin Society (now the Royal Dublin Society), to establish a public botanic garden. In 1795, the Gardens were founded on lands at Glasnevin. By the 1830’s, the agricultural purpose of the Gardens had been overtaken by the pursuit of botanical knowledge. This was facilitated by the arrival of plants from around the world and by closer contact with the great gardens in Britain [...]. By 1838, the basic shape of the Gardens had been established. Ninian Niven as Curator had in four years laid out the system of roads and paths and located many of the garden features that are present today.” See a *Brief History of the Gardens*, [www.botanicgardens.ie/history/history.htm](http://www.botanicgardens.ie/history/history.htm) [Accessed 01 Nov 2015].

cognisance of his proceedings, – then I shall keep him on his sharps, because however good he may be as a computer and observer, he will not do for me unless he be also industrious. In the meantime I shall let him alone.” However friendly Hamilton could be, and humble, he thus could also be very strict. Yet he apparently acted justly; Hamilton and Thompson succeeded in obtaining a good working relationship.<sup>64</sup>

Indeed, even Hamilton was not always friendly and apparently, if he thought that something he wanted to do was just, he would do it. That can be seen in a letter given by Wayman, in which Hamilton described how he acquired a “telescope from Sharp,” as part of a story in which the circumstances leading to his action are not entirely clear yet the action itself leaves nothing to the imagination. On the 4<sup>th</sup> of April 1834 Hamilton wrote in a letter, presumably to Adare, “Since [Wayman adds: my paper]<sup>65</sup> went off, I have turned astronomer for the present; & finding myself unable to induce Sharp<sup>66</sup> to keep his promises, & left in the lurch by him, I made a *foray* yesterday, & carried off bodily the telescope and circles from his house – he being at Mr. Cooper’s, & having promised to leave them here before he went.<sup>67</sup> We, that is myself & Thompson & the Carpenter, Plumber & Carman, had great amusement for a good while taking down and putting up everything. Altho’ Sharp had locked up the microscopes ... I contrived such expedients for reading off, that in the course of 5 or 6 hours work last night I found I could very easily identify & point to a star.”<sup>68</sup>

## 2.6 A warning

From the descriptions of Hamilton’s character it can be inferred that Hamilton coped with his life just as intelligently as with his mathematics, which is why it is so

<sup>64</sup> [Graves, 1882, p. 251], [Hankins, 1980, p. 49, p. 406 note 22], p. 181. Thompson was the astronomy assistant at Dunsink from 1817, during Brinkley’s time, until the beginning of the 1870s. His birth and death dates come from [Wayman, 1987, p. 125] and *Ballycastle*: [www.ballycastle.info/genealogy.htm](http://www.ballycastle.info/genealogy.htm) [Accessed 08 May 2015]. He lived on the premises; after Hamilton’s election to become the Astronomer Royal, the Board of Trinity College “ordered a new house built for the assistant, Thompson.” [Hankins, 1980, p. 405 note 8]. His eldest son Henry, born in 1832, must have liked Hamilton; according to Wayman he emigrated to Australia where in 1865, Hamilton’s death year, a son was born who was named Rowan Hamilton Thompson.

<sup>65</sup> Hamilton, W.R. (1834), On a General Method in Dynamics; by which the Study of the Motions of all free Systems of attracting or repelling Points is reduced to the Search and Differentiation of one central Relation, or characteristic Function. *Philosophical Transactions of the Royal Society*, 124: 247-308. <https://babel.hathitrust.org/cgi/pt?id=njp.32101076185378>. See for the abstract p. 275 of the *Abstracts of The Papers printed in the Philosophical Transactions of the Royal Society of London, From 1830 to 1837 inclusive*. Vol III. <https://archive.org/details/abstractsof318301837roya>. Since the meetings of the Royal Society of London of course were held in London, Hamilton’s paper was read by Captain Beaufort (1774-1857) on the 10<sup>th</sup> of April, during the same meeting in which Adare was elected a Fellow of the Royal Society as is mentioned in the *Abstracts* before the abstract of Hamilton’s paper.

<sup>66</sup> Although in Graves’ biography the clockmaker’s name is invariably written as ‘Sharpe’, his name seems to have been Sharp indeed; on p. 49 of *The Dublin Penny Journal*, volume 4, 15 August 1835, in an article about Dunsink Observatory, he is referred to as “the late Christopher Sharp.” In the article it is mentioned that before Sharp died he had almost completed an “equatorial instrument with heliostatic movement,” carrying an achromatic telescope. <https://babel.hathitrust.org/cgi/pt?id=nyp.33433081677647;seq=59>. Sharps’ birth and death years seem to be uncertain; he was of course still alive at the time of Hamilton’s *foray* on the 3<sup>rd</sup> of April 1834, but he obviously died before the 15<sup>th</sup> of August 1835. For the equatorial instrument see also p. 163.

<sup>67</sup> This seems to indicate that they did not break in; Hamilton probably just forced the decision.

<sup>68</sup> [Wayman, 1987, p. 159]

unsatisfactory that his life is described in such a shallow way as is done in most biographical sketches. Reading his letters, it is obvious how many different thoughts he could have even if they seemed to be contradictory, while feeling them as the very truth at the moment of thinking them, and how he tried to be a good man. He used his intellect and his faith to keep his footing; he dealt with his mental pain, learned from it, and used it not to become vain.<sup>69</sup> He evidently thought that that was necessary, and actually, for someone who was used to being right so often and was so honoured already at such a very young age, that might very well be true.

Hamilton having been so much praised as a child had also made uncle James cautious; when Hamilton was four years old aunt Sydney wrote to his mother: "Your dear Willy is very well. For him you cannot be too thankful, he is a most sensible little creature, but at the same time has a great deal of roguery about him. James does not let him much out, for fear of his being spoiled by praise, for he says he thinks that is the reason so few children grow up clever."

A very stern warning came from his aunt Mary Hutton in September 1822 when Hamilton was seventeen; in August Hamilton had written a letter to her: "I have been continuing my Classics, as usual, with my uncle. But I fear I shall never be so fond of them as of the Mathematics that I am now reading. I know that an intimate acquaintance with Classical literature is of the greatest importance both in College and in society: that nothing contributes more to form and refine one's taste; but still, in human literature, I think there is nothing that so exalts the mind, or so raises one man above his fellow-creatures, as the researches of Science. Who would not rather have the fame of Archimedes than that of his conqueror Marcellus, or than any of those learned commentators on the Classics, whose highest ambition was to be familiar with the thoughts of other men? If indeed I could hope to become myself a Classic, or even to approach in any degree to those great masters of ancient poetry, I would ask no more; but since I have not the presumption to think so, I must enter on that field which is open for me. Mighty minds in all ages have combined to rear upon a lofty eminence the vast and beautiful temple of Science, and inscribed their names upon it in imperishable characters; but the edifice is not completed: it is not yet too late to add another pillar or another ornament. I have yet scarcely arrived at its foot, but I may aspire one day to reach its summit."

Graves comments: "The letter to his aunt giving vent to his feelings of scientific ambition appears to have startled his good and kind relative, unable doubtless to measure the intellectual capacity of her young correspondent, and to have made her think it incumbent on her to administer a lesson of humility. In reply he says: "I quite agree with you in the importance of humility, and accept what you say as a gentle reproof to the tone of my last letter. I fear I may have appeared arrogant, while unbosoming my secret thoughts and wishes, and those aspirings in which I scarcely ever dare permit myself to indulge, much less reveal them. Whatever I may hope for the future, I am conscious of my present deficiencies; and know how unprofitable is human knowledge to one who is not taught of God.""<sup>70</sup>

<sup>69</sup> [Graves, 1885, p. 611]. In a letter to Adare Hamilton claimed with a good dose of self-mockery to have a "method in his madness, and a theory for handling the apparently opposite phenomena." See p. 99.

<sup>70</sup> [Graves, 1882, p. 34], [Graves, 1882, p. 111], [Graves, 1882, p. 113]. Curiously, Graves seems to assume that aunt Mary would not have been startled if she had understood Hamilton's superiority in mathematics. But as his aunt she had known Hamilton all his life and, as anyone around him, she

Also Hamilton's father had warned him, in his last letter, against discussions which are 'maintained more as a display of mental powers than to propagate truth'; although he specifically alluded to discussions connected with Scripture, it can easily be taken more generally. And in June 1827, when Hamilton had finished his studies with extremely high scores and was appointed Andrews professor of Astronomy, therewith carrying the title 'Royal Astronomer of Ireland' although he still had examinations to take, his friend Miss Arabella Lawrence (1788-1873), "warned" him in a letter "not to become too excited by his new honors."<sup>71</sup> Hamilton knew already early in his life that he could become too self-confident; and the clear warnings will have helped him to stay motivated to strive for humbleness throughout his life.

The foregoing accounts of Hamilton's character are somehow summarized in the quote at the beginning of this essay; the beautiful description of what he sees in nature, followed by his almost scientific, or, fancying about being removed to another universe, actually astronomic, contemplations about morality which he also immediately answers upon, in a sentence without end.

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doubtlessly knew his extreme uncommonness very well. It is entirely possible that she, just as uncle James, simply was worried about a lack of humility in a life so full of success and praise. Graves' reaction to Hamilton's letter to aunt Mary also shows again some of Graves' motives for selecting letters for his biography; Hamilton had continued the letter writing: "I can very well conceive that it must be difficult for Eliza to speak French all day, as she has never been accustomed to it; but the advantage will repay the trouble. It is very hard at first to learn to speak or write in a foreign language; but there is no better way of becoming master of it. When I wrote a Persian Address to the Ambassador some years ago, it obliged me to ransack my memory, grammars, and other authorities for the best way of expressing my ideas: in short I learned more Persian in a day than in a long time before. I have not much practised writing Latin; but I wrote a Latin letter the other day, and found great benefit from it." Thereupon Graves comments: "The Latin letter here referred to was addressed to his Cousin Arthur, and is still in existence. I have not thought it worthy of insertion here, for though very pleasing in its tenor and possessing much elegance of style, its Latinity is not flawless." Obviously, flaws in letters were a reason for Graves to leave them out. That does of course also influence Graves' biography; since letters of 'ordinary people' did not make it into the biography, the whole atmosphere of the biography seems to indicate a much less intense family life than Hamilton actually had.

<sup>71</sup> [Hankins, 1980, p. 52]. For propagating truth see p. 37, for the extremely high scores see p. 65, for Miss Arabella Lawrence see p. 110.



# Chapter 3

## A lover

### 3.1 Love at first sight

On the 17<sup>th</sup> of August 1824 Hamilton, who just had turned nineteen, fell head over heels in love with Catherine Disney (1806-1853) who was, according to Graves, “by all accounts, of singular beauty, amiable, sensitive, and pious.”<sup>1</sup> That day Hamilton visited Summerhill, then “the residence of the family of Disney,”<sup>2</sup> who “became at once to him the objects of warm friendship,<sup>3</sup> and one daughter of the house the source of a still deeper feeling, which influenced his whole life.”<sup>4</sup>

According to Hankins, Hamilton “committed all kinds of social blunders [...]”; he ignored Mrs. Disney, whom he should have led into dinner, and took Catherine’s arm instead, and completely monopolized her during the whole evening.”<sup>5</sup> Hamilton

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<sup>1</sup> [Graves, 1882, p. 160]

<sup>2</sup> See for Summerhill House and the Disney family having lived there footnote 18 on p. 57.

<sup>3</sup> Concluding from the biography, especially Thomas Disney (1799-1889) became a friend for life.

<sup>4</sup> Although Hamilton mentions Catherine’s name in a poem and a letter written before her marriage in 1825, Graves never gives her name in the main text of his biography himself. Especially after Hamilton’s marriage in 1833 Graves is, just as he was about D. Br—, very secretive about her, apparently judging Hamilton’s contacts with Catherine after his marriage “too personal”, something he more often gives as a reason not to publish letters. Through Hankins’ biography it can be seen what Graves considered “too personal” to be published; while describing 1828, for that reason he does not want to give a letter from Hamilton to Eliza. [Graves, 1882, p. 286]. But Hankins does discuss the letter which was written on the 2<sup>nd</sup> of April 1828, and in it Hamilton mentioned to have been “dazzled” by the “scientific talent” of Fanny Edgeworth (1799-1848), a half-sister of Maria Edgeworth (1768-1849) whom he met during his college years. Still, in the same letter Hamilton wrote: “yet even in the moments during which I felt most strongly the influence of sympathy with my master-passion, I would not have exchanged for [Fanny] any one of my own sisters, or any one of the Disney family.” [Hankins, 1980, pp. 55-56], [Hankins, 1980, p. 406 note 44]. That sheds a light on what was “too personal”; Graves had to write about the “three loves”, but it was not necessary to mention “too personal” interests in women if that could be avoided. Yet, although completely withholding Catherine’s identity when giving parts of a secret correspondence between Hamilton and Catherine in 1848, see p. 270, Graves quite surprisingly gives away her name in the index when describing that Hamilton visited her shortly before her death in 1853, see p. 301. Combining this information with Graves’ remark about how “one daughter” “influenced his whole life”, for anyone who knew them it must have been easy to guess with whom Hamilton had corresponded. In those Victorian times not everyone seems to have been happy about that, see for instance p. 477.

<sup>5</sup> [Hankins, 1980, pp. 37-38]

clearly was on top of the world; on the 11<sup>th</sup> of January 1825 he wrote to uncle James, who had introduced him to the Disney family, about how easily he got through college, "However completely College business may appear to most persons to engross my time, you know that it has never been sufficient to occupy it. There has always been a surplus, which according to circumstances has been devoted, at one period to an occultation, at another to Caustics, at another to wandering about the world, through Dublin, Trim, Bellevue, and Edgeworthstown. All these things (with perhaps the exception of my wandering visits) the Provost and you are pleased to designate as extravagating – a word which Mr. [Richard] Butler [(1794-1862)] seems to think coined for the occasion."<sup>6</sup> And after presenting his plans for the next years, including the "splendid enterprise of reading for both Gold Medals," for Science and the Classics, Hamilton asked: "what season remains, except the present year, for indulging in my darling "extravagance"?"<sup>7</sup>

At the end of this happy letter Hamilton uncovered his feelings to his uncle: "It is absolutely necessary that I should no longer defer speaking of Miss Disney. Beautiful as she is, the stranger only can observe her beauty; her mind and her heart, with those who know her, are the objects which engage their attention and secure their love." But he still had to finish his studies and was not yet financially stable enough to marry, and while becoming friends with her family he did not express his love for her directly.<sup>8</sup>

## A loss

The next month, February 1825, Hamilton "had to suffer a [disappointment] which fell with crushing weight upon his heart and spirits. He learned quite unexpectedly from the lips of her mother that the lovely object of his passionate admiration was claimed as bride by an elder suitor [the clergyman William Barlow (1792-1871)], and that her marriage would shortly take place." Since he had not spoken about his feelings for Catherine, she herself, and her parents, perhaps did not realize how much he

<sup>6</sup> [Graves, 1882, p. 171]. On the 5<sup>th</sup> of January 1825 the Vicar of Trim, Mr. Butler, had written a letter to Hamilton from which it can be inferred that uncle James was slightly worried about Hamilton, who seemed to do more than just study; "Your uncle will be glad to hear that you are busy preparing for Examinations. He does not much approve of your extravagating. I believe that word was made for you by the Provost, so I give it to you, considering it your peculiar property. I beg that you may not return it on my hands. I will have nothing to say to it." [Graves, 1882, p. 171].

<sup>7</sup> [Graves, 1882, pp. 170-171]. In 1824 Hamilton had written a paper on caustics: "The mathematical investigations respecting the science of Optics, of which the germ had been conceived in 1822, were carried on, as occasional expressions in his letters have intimated, through the years 1823 and 1824 in the intervals of his Collegiate studies. Towards the close of the latter year they had been set forth in the form of a paper 'On Caustics', of which the preface bears date December 6, 1824." [Graves, 1882, p. 176]. The paper was rejected for publication: "We the Committee appointed to consider the 'Memoir on Caustics' presented by Mr. Hamilton, having attentively examined the same, are of opinion that the results at which the author has arrived are novel and highly interesting, and that considerable analytical skill has been manifested in the investigations which lead to them. But we conceive that the discussions included in the Memoir are of a nature so very abstract, and the formulæ so general, as to require that the reasoning by which some of the conclusions have been obtained should be more fully developed, and that the analytical process by which some of the formula have been obtained should be distinctly specified." [Graves, 1882, p. 186]. Hamilton rewrote the paper into his 'Theory of Systems of Rays' which, together with three supplements, would be the onset to Hamiltonian mechanics, see also p. 121.

<sup>8</sup> As he mentioned in the poem 'The Enthusiast', see p. 62.



was in love with her. Showing his feelings had not seemed to be imperative then since he did not know about the wedding plans; many years later, in August 1861, Hamilton would write to Catherine's sister Louisa<sup>9</sup> that "without a word said of love, we gave away our lives to each other," and about one evening "when they all sat around the fire and listened to Catherine play the harp: "Alas, there was another person in the room, whose presence or absence seemed then to me a matter of supreme indifference.""<sup>10</sup>

Graves writes: "The marriage probably occurred early in May, for the date May 13, 1825, is attached to the lines in which, referring to it as a past event, he bade her farewell. It may be right to mention that a note appended to one copy states the fact that they were not sent to the person addressed."<sup>11</sup>

#### A FAREWELL.

I could not see thee on thy bridal day,  
 I could not mingle with the festal throng;  
 Though not perchance less fervently than they  
 I wished thee richest bliss, unmixed and long –  
 But not at once are quelled those feelings strong,  
 Which held entire dominion o'er the mind,  
 Nor high resolve hath power, nor charm of song,  
 At once the wounded spirit to upbind,  
 Or do the trace away, that love hath left behind.

To me thou canst not be what thou hast been –  
 The polar star in Hope's high firmament –  
 The fount that made life's desert pathway green –  
 The spell that bound me wheresoe'er I went;  
 The treasure of my musings, the dream blent  
 With many a rainbow hue of far delight,  
 O'er which my fancy but too fondly bent; –  
 The prize my young ambition to invite –  
 The one dear thought that tinged all else with its own light.

Seldom, how seldom! shall we meet again,  
 And stranger-like, and part as strangers part;

<sup>9</sup> Louisa Disney's birth and death years seem to be unknown. "Louisa Disney was married in 1839 to the Rev Henry T. Hobson, rector of Ballymascanlan" "where she was surrounded by relatives." McDonnell, G. (1995), Reviewed Work: Disneys of Stabannon by Hugh Disney. *Journal of the County Louth Archaeological and Historical Society*, 23 (3): 378-379. She married in 1850, as a widow, Alexander Orr Reid. Davies, R., *Surnames of Co. Down*. <http://freepages.genealogy.rootsweb.ancestry.com/~rosdavies/SURNAMES/H/HobHol.htm> [Accessed 8 Jun 2015].

<sup>10</sup> See p. 321, [Hankins, 1980, p. 405 note 70].

<sup>11</sup> [Graves, 1882, p. 182]. The wedding was announced in the *Freeman's Journal* of Monday the 9<sup>th</sup> of May 1825, and had taken place "on the 5<sup>th</sup> instant [on the 5<sup>th</sup> of this month]." [http://search.ancestry.com/cgi-bin/sse.dll?gl=allgs&gss=sfs28msrf-2s&new=1&rank=1&gsfn=Catherine&gsfnx=0&gsln=DisneyBarlow&gslx=1&msbdy\\_x=1&MSAV=1&msbdy=1806&gsfn\\_x=XO](http://search.ancestry.com/cgi-bin/sse.dll?gl=allgs&gss=sfs28msrf-2s&new=1&rank=1&gsfn=Catherine&gsfnx=0&gsln=DisneyBarlow&gslx=1&msbdy_x=1&MSAV=1&msbdy=1806&gsfn_x=XO) [Accessed 06 Nov 2015]. A page on the *Barlow Genealogy* website, [www.barlowgenealogy.com/ireland/families/a/lexofireland.htm](http://www.barlowgenealogy.com/ireland/families/a/lexofireland.htm) [Accessed 01 Nov 2014], shows that one of William Barlow's brothers was married to one of Catherine's sisters, making her parents' choice for Barlow, see p. 303, perhaps slightly understandable; that is, as seen in the light of their time.

I shall, perhaps, be quite forgotten then,  
 And chilled may be this once impassioned heart.  
 Yet though no more my star of hope thou art –  
 My spring of loftiest, sweetest fantasy –  
 Thy cherished image never shall depart,  
 Still will I wish all joy to wait on thee,  
 Still pray thy lot on earth a younger heaven may be.<sup>12</sup>

Many years later, in October 1858, Hamilton reflected on his devastation in a letter to Tait;<sup>13</sup> “Perhaps it may be because we are as yet so slightly acquainted with each other, that I am willing to confess to you on this occasion of the melancholy event which you report<sup>14</sup> that I have, once in my life, experienced, in all but its last fatal force, the suicidal impulse. It was (as I full well remember) in the month of February, 1825, ... and (curious coincidence) when I was on my way from Dublin to this very Observatory: for Dr. Brinkley had invited me to join a dinner party here. The grief, which had then recently and suddenly fallen upon me was one which I feel even yet. ... I remember and have many hundreds of times passed the exact spot, where I thought for a moment of plunging, for death, into the water. I wish that I could add that it was religion – the Christianity of the Anglican Church, in which I have been baptised and confirmed and to which I adhere – or even generally my belief in the Bible, which protected me. My recollection has always been that it was simply a feeling of personal courage, which revolted against the imagined act, as one of cowardice. I would not leave my post; I felt that I had something to do.”<sup>15</sup>

<sup>12</sup> [Graves, 1882, p. 185]. The poem ‘A Farewell’ was published under the ‘pseudonym’ W.R.H. in *The Dublin Literary Gazette, and National Magazine* for August, 1830, p. 149. It is reproduced here in its published form. <http://babel.hathitrust.org/cgi/pt?id=chi.17194895;view=2up;seq=175> [Accessed 12 Nov 2015].

<sup>13</sup> Graves does not give the name of the recipient of this letter, but Hankins does. [Hankins, 1980, p. 39, p. 405 note 74]. About the correspondence between Hamilton and Tait which started in 1858 Graves writes: “A letter from Dr. Andrews [(1813-1885)], Vice-President of the Queen’s College, Belfast, sought from Hamilton the favour of allowing Peter Guthrie Tait, then Professor of Mathematics in that College (now the well-known Professor of Natural Philosophy in the University of Edinburgh), to correspond with him upon the subject of Quaternions. The favour was granted, and it may be said that if it was a great advantage to Professor Tait to be instructed and guided by its discoverer in this new region of science, Hamilton, also, while carrying on his great solitary labour, had reason to feel grateful to his able and zealous disciple for valuable sympathy and stimulus. The correspondence which began in this autumn was continued up to the last year of Hamilton’s life with a persistency and vigour which must have appeared wonderful to the younger man.” [Graves, 1889, pp. 104-105].

<sup>14</sup> It is unclear which melancholy event had happened in Tait’s life around that time. In October 1857 Tait had married Margaret Archer Porter; according to Lord Kelvin (1824-1907), “During these bright years in Belfast he found his wife and laid the foundation of a happiness which lasted as long as his life.” Shortly before 1856 he had lost a very dear friend though; William John Steele (ca 1831- ca 1854) “was evidently a man after Tait’s own heart. They were close friends throughout their College life, and when Fellows of the same college they collaborated in the production of [*A treatise on the dynamics of a particle, with numerous examples*]. The book was planned and to some extent written during a holiday they spent together after they took their degree. Unfortunately Steele’s health gave way, and his early death left his portion of the work unfinished. With the true chivalry of his nature Tait issued the book in 1856 under the joint names of Tait and Steele; and “Tait and Steele” is still its familiar title.” See p. 14 and p. 10, respectively, of Knott, C.G. (1911), *Life and Scientific Work of Peter Guthrie Tait*. Cambridge: at the University Press. <https://archive.org/details/lifescientificwo00knotrich>.

<sup>15</sup> [Graves, 1885, p. 610]. The sentence between dashes was left out by Graves, but added again by

In many of the biographical sketches it is stated that Hamilton considered suicide, or even was suicidal, but he clearly was not and did not think so himself; however difficult these times were for Hamilton, he does not sound as if he really had to struggle not to give in to the thought. What motivated him to go on even during these desperate times motivated him throughout his life, this idea that he “felt he had something to do;” that by “unfolding to myself and to other men the external works of God, and the magnificent simplicity of Creation,” he “might win [him] an imperishable name.”

This idea is present in everything he did or wrote, and a clear example of how far that went can be found in an extract of a memorandum William Edwin wrote about his father in 1854: “Sir W. is surprised at his own apathy with respect to the mode in which the quaternions are regarded by the world: [an old investigation of Sir W.’s was reprinted] and he had not yet even the curiosity to inquire what it was. [...] Sir W. considers this a mark of his own indifference to contemporary fame, and as arising from his conviction that his belonged to a future age entirely.”<sup>16</sup>

Hamilton passed the October Examination of 1825, but with a ‘bene’, which in his case was a lower grade than usual. Yet, that does not mean that he did nothing except being in despair, even during those difficult times he had, next to his mathematics, his family and his friends to console him; on the 14<sup>th</sup> of October, shortly before the examination, he had written to his eldest sister Grace: “I am going on hard at work with the business for next Examinations, which are so close at hand. The Oration of Demosthenes I have read, and have finished Locke; Cicero I am now reading, and hope to be well prepared in all. I have also been making myself better acquainted than I was with Plane Geometry; and I have found out some new things about Systems of Rays. But as the remaining time before next Examination is so short, I have resolved to suspend my investigations in those favourite fields of research till I have got, at least tried to get, my last Classical Certificate. Then I will endeavour to make my Essay upon Systems of Rays as perfect and as interesting as possible. How pleasant it will be to meet all together again, after the anxiety of an October Examination, and after being so long separated! Archianna, too, will be with us this time, and add not a little to our enjoyment. I am afraid we are too old and sensible to care much for the nuts and apples – even burning nuts – and I do not know whether at Ballinderry such customs exist; but though it is no longer so important an evening as once it was, it can never cease to be a happy one while we are able to assemble together, and while our “meeting ring of happiness” is shone upon by the Sun of mutual Love.”<sup>17</sup>

Perhaps surprisingly not blaming the Disneys for his unhappiness, he kept visiting the family, having befriended the sons; in September 1825 he wrote to Eliza: “I am now, as you will observe by the date, in Summerhill.”<sup>18</sup> If you wish to have a more

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Hankins. [Hankins, 1980, p. 39].

<sup>16</sup> See p. 75, p. 62, [Graves, 1885, p. 693].

<sup>17</sup> [Graves, 1882, p. 190]. Archianna Priscilla Hannah (1815-1860) was Hamilton’s youngest sister. Not much is said about her in the biography, but Hamilton once mentioned that she was funny, and once that she seemed to prefer “the lyre to the telescope.” [Graves, 1882, p. 49], [Graves, 1882, p. 305]. The evening of the 31<sup>st</sup> of October, before All Hallows’ Day, was, according to *The food timeline*, celebrated with colcannon, apple cake and barm brack, as well as apples and nuts. [...] Courting couples [sat] around the fire telling stories and roasting nuts.” *The food timeline*, [www.foodtimeline.org/halloween.html#ireland](http://www.foodtimeline.org/halloween.html#ireland) [Accessed 09 Nov 2015].

<sup>18</sup> Summerhill was owned by Clotworthy Rowley (Taylour), 1<sup>st</sup> Baron Langford (1763-1825) and

minute description, know that I am in the chamber of the eastern wing upon the north side of the castle, as I conclude from the stars – time midnight, as I learn from the deep tolling of the clock in the tower. A shaded lamp is burning before me; all is quiet now except the audible ticking of my watch; both doors of my room are open, one of which leads to a suite of uninhabited apartments, so long that my light only shows their gloom, through which the beams wander without filling their extent.<sup>19</sup> Hark! what sound is that which comes from their obscurity? it is only the creaking of a door; but though I am in a castle, with windings and recesses enough to please you and to satisfy even the passion for exploring which we had when children, I am not now writing a romance but a letter, or rather, I have already exhausted my limits of paper for that purpose. [...] I have been making a very long visit here, and a very pleasant one. I could talk to you about many of the reasons, difficult yet interesting to analyze, which still make Summerhill to me “like a heart-cherished home on some desolate plain,” but I have neither inclination nor time to write about them.”<sup>20</sup>

### Praise and dispraise for his poetry

In October 1825 Hamilton met Miss Arabella Lawrence, the third of four sisters whom Hamilton called the “Miss Lawrences”, and who lived about ten kilometers from Liverpool.<sup>21</sup> According to Graves, “it seems likely that she was on a visit to

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of his wife Frances Rowley (ca 1775-1860), who inherited her uncle Langford’s estates, see *The Peerage*, [www.thepeerage.com/p49381.htm#i493806](http://www.thepeerage.com/p49381.htm#i493806). The Baron died on the 13<sup>th</sup> of September 1825; Hamilton wrote letters from Summerhill on the 6<sup>th</sup> and the 24<sup>th</sup> of September 1825 while Graves calls it the “residence” of the Disneys. Although in 1837 the Baroness was still alive, on pp. 244-245 of *A Topographical Dictionary of Ireland* it is written that in 1837 “the principal seats [of Laracor in county Meath] are Rock Lodge, the residence of T. Disney, Esq.; [...] Adamstown, the property of T. Disney, Esq.; and Summerhill, the property of the Earl of Longford.” [https://archive.org/details/bub\\_gb\\_dDQE-stxs-AC](https://archive.org/details/bub_gb_dDQE-stxs-AC). That would mean that the owner then was Edward Michael Pakenham (1817-1860) who was very closely related to the Baroness, and since May 1835 the 3<sup>rd</sup> Earl of Longford; the Langfords did not have an Earldom. Yet in the process of describing 1824 Graves writes that Summerhill was “then [1824] and now,” presumably when writing the biography, “the property of Lord Langford, to whom Mr. [Thomas] Disney senior [(1767-1851)] was agent.” [Graves, 1882, p. 160]. In Catherine’s 1825 marriage announcement, see footnote 11 on p. 55, it is written that she was a daughter of Thomas Disney “of Westland-row” which is in Dublin; in or before August 1824 Thomas Disney apparently unofficially moved his family from Dublin to Summerhill. The Disneys still lived there in 1825, after Catherine’s marriage, since Hamilton wrote letters while visiting them, and in or before 1837 they moved to Laracor. All this could lead to the scenario that around the death of the Baron in 1825 the Disneys lived or lodged with the Baron and the Baroness, taking care of their business and perhaps even caring for them, and that at various places the Lords Langford and Longford were mixed up. Rock Lodge was later inherited by Thomas Disney, one of Catherine’s brothers, see footnote 54 on p. 288.

<sup>19</sup> Summerhill House had a hundred rooms. See *archiseek : Architecture of Meath & Lost Buildings of Ireland*, <http://archiseek.com/2012/summerhill-co-meath> [Accessed 02 Nov 2015].

<sup>20</sup> [Graves, 1882, pp. 188-190]

<sup>21</sup> According to Graves Hamilton befriended the eldest of the Miss Lawrences, but that cannot be correct. The website *Gateacre ‘Academies’* by Borrowscale, J., <http://gatsoc.atwebpages.com/history/academies/page9.html>, contains an article called ‘Miss Sarah Lawrence (1780-1859): School Mistress’. “The Academy of Sarah Lawrence was at ‘Higher Grange’ Rose Brow on the site which is now Gateacre Grange. The previous building was then known as New Grange, a rather imposing building [...]. In 1822 the Land Tax shows Sarah Lawrence as proprietor and occupier.” In the article, Miss Sarah Lawrence’s brothers and sisters are named, among who are Arabella and Harriet and indeed, in a letter to Eliza, Hamilton mentioned both of them, [Graves, 1882, p. 535]. But he called Miss Arabella “my old friend”, and the sister from whom he received a letter of introduction to Coleridge “the eldest Miss Lawrence”, see p. 110. On p. 25 of Sarah Lawrence’s 1844 book *The*

Miss Edgeworth, and that the mutual introduction took place through her. The [...] sisters were women of sound judgment and much culture. [Miss Arabella Lawrence] became to Hamilton, for some years, a valuable friend and adviser, [and to her] Hamilton had shown some of his poems, and had received from her in return criticisms honestly blending praise and dispraise.”<sup>22</sup>

Hamilton had reacted in a letter written on an unknown date in 1825: “Excuse me if, in the fear that I may not soon see you again, I take this way of renewing my acknowledgments for your candour on the subject of my poetry; which did not disappoint my hope that I should find in you not only a mind capable of judging, but one which would sincerely express its judgment. You remember the ancient and expressive maxim, “Know thyself.” It is one I have always admired and wished to act on; but to do so is very difficult, and perhaps more than usually difficult for those who have been assailed from childhood by the siren voice of praise. And however conscious one may be that partiality has influenced the opinion of friends, and that accident may have contributed to success, it yet requires vigilance in the favoured or fortunate individual to think of himself soberly and as he ought to think. It is on this account that I prize the sincerity which assists me to watch over, to control and to counteract the tendency of praise and of success.”

Hamilton had already been highly praised for his poetry; he had won two Chancellor’s prizes for two of his poems, one early in 1824, and the second in the following summer. Yet, his remarks can be taken as a sign that, having been warned more often, Hamilton was by now generally very aware of the dangers of too much praise.<sup>23</sup> That the praise about his mathematics, his poetry or perhaps about his general scientific skills, just did not mean that he could achieve anything or that he was a better man than others.

He continued the letter to Miss Lawrence: “There is another view which may be taken of the maxim I have mentioned; it may be considered to enjoin the forming an estimate of the powers of one’s own mind; examining what is within their reach and what they may not hope to attain. In forming such an estimate, too high a value cannot be set upon the opinion of a sincere friend. For, not to mention the flattering medium through which the mind unconsciously views every object connected with self, and which perhaps secretly elevates everyone in his own eyes into a character of greater dignity and importance than he is in truth or in the eyes of others; besides this general delusion of self-love, which vitiates the whole of our estimate, experience has shown how apt men are to err even in the relative place that they assign to their own powers and performances.”<sup>24</sup> Milton is believed to have thought the “Paradise Regained” superior to “Paradise Lost” and it is said that Salvator Rosa could not bear to have his landscapes preferred to his historical paintings. If then, as we can scarcely but believe, the minds of men, like their bodies, are cast in different

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*descendants of Philip Henry, M.A., Incumbent of Worthenbury, in the County of Flint who was ejected therefrom by the Act of Parliament 1662*, London: Simpkin, Marshall, And Co., <http://archive.org/details/descendantsofphi00lond>, it can be read that the eldest sister was Eliza, but she had died in 1811. Miss Sarah was the second child and thus the eldest of the Miss Lawrences. Miss Arabella’s date of death, see p. 51, comes from *Thomas Lawrence Family of Wem, Shropshire*, [www.lawrence-ons.org/wem.html](http://www.lawrence-ons.org/wem.html) [All websites accessed 12 Apr 2015].

<sup>22</sup> [Graves, 1882, p. 191]. In those days girls generally did not go to school; that also held for Helen Eliza, see p. 214. Graves does not mention why Hamilton did not send her to a girls’ school.

<sup>23</sup> [Graves, 1882, p. 154], p. 71

<sup>24</sup> The mere possibility of having a lack of self-confidence seems to have been alien to Hamilton.

moulds and capable of different perfections, how greatly conducive to ultimate success it must be to have the energies early turned into that direction in which alone excellence is to be hoped for, and how true the kindness which discourages from a pursuit that can but end in disappointment or in mediocrity.<sup>25</sup> But while you concur with my own sober judgment in refusing to award me the crown of poetic power, you would not, I am sure, desire to extinguish in me that love of “sacred song” to which I can with truth lay claim. There is little danger of its ever usurping an undue influence over a mind that has once felt the fascination of Science. The pleasure of intense thought is so great, the exercise of mind afforded by mathematical research so delightful, that, having once fully known, it is scarce possible ever to resign it. But it is the very passionateness of my love for science which makes me fear its unlimited indulgence. I would preserve some other taste, some rival principle; I would cherish the fondness for classical and for elegant literature which was early infused into me by the uncle to whom I owe my education – not in the vain hope of eminence, not in the idle affectation of universal genius, but to expand and liberalise my mind, to multiply and vary its resources, to guard not against the name but against the reality of being a mere mathematician. For while there is no one study the exclusive attention to which has not a dangerous effect in the formation of character, perhaps, as there is none more fascinating, so there is none in this respect more dangerous than mathematics. Mistake me not, as if I were insensible to the dignity of Science, or meant to depreciate it. I know that Science presents to its votaries some of the sublimest objects of human contemplation; that its results are eternal and immutable verities; that it seems to penetrate the counsels of Creation, and soar above the weakness of humanity. For it sits enthroned in its sphere of isolated intellect, undisturbed by passion, unclouded by doubt. And I have thought that, in the infinity of Creation, there may be an order of beings of pure and passionless intellect, to whom Science in all its fulness of beauty is unveiled, and to whom our noblest discoveries appear but as the elements of knowledge. My conception of them indeed differs widely from that which Pope has embodied in the lines – “Superior beings when of late they saw A mortal man unfold all Nature’s law, Admired such wisdom in an earthly shape, And showed our Newton as we show an ape.” But I do think that their ample ken may take in the whole of that ocean of truth respecting which Newton is reported to have said that he had but been gathering some pebbles by the shore. And as we read that the mystery of our redemption affords a theme which angels desire to look into, so I think that there may be angelic existences admitted to behold the whole of that vast connexion which binds together the material universe of God.

“But with all these ideas of the dignity of Science, and with all this enthusiasm of love for it, I still must regard it as dangerous when made the exclusive object of study and affection. For, whatever may be imagined of those superhuman beings, man is not a creature of intellect alone, nor is he at liberty to bestow upon it an isolated cultivation. His heart is even more important than his mind; he was made to be a social creature, and his second duty is love to man. Now I think that poetry is eminently qualified to strengthen and refine the links which bind man to his kind. Poetry gives “a local habitation and a name” not only to the creatures of its own imagination but

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<sup>25</sup> Hamilton would more often state that his only “power” was mathematics, see for instance p. 68 and p. 246, and here it can be read how he defined this “power”, namely, as that “what is within reach” to achieve excellence and ultimate success, and not to end in disappointment or mediocrity.



to those finer and more delicate sympathies of our nature which without it would be, not indeed less real, but perhaps less communicable and less abiding. Besides, the poet, whether he send his delighted eye abroad upon the external beauty and magnificence of Nature, or mingle in the busy hum of men, or withdraw into himself and his own solemn musings, has still within his own breast a source of never-ending gladness, or of more pleasing and sweeter melancholy. Nor are such luxuries denied to all of those who can never hope to attain eminence as poets. Permit me here to cite a passage of my own: –

Yet 'twas the hour the Poet loves  
 Alone to wander through the groves;  
 Unheeded, uncontroll'd, to pour  
 His spirit forth in verse; to soar  
 Up to the heaven of heavens; to climb  
 Above the bounds of Space and Time;  
 To call ideal worlds to view,  
 His own creation bright and new.  
 And I, although I dare not claim  
 That lofty meed, the poet's name,  
 Enjoy in solitude like this  
 A portion of the poet's bliss.

"I have had (I confess it) my day-dreams of hope, in which I have thought that mine was a lofty destiny; I have indulged in anticipations of an imaginary lustre which I was to cast upon my College and my country; but those high aspirings never fed on poetry; I never, in my wildest moments, fancied that I should enrol my name by the side of Homer, Shakespeare, and Milton. Poetry and Science hold their separate realms, and the majesty of neither will brook a divided allegiance."<sup>26</sup>

Whether or not through Miss Lawrence's criticisms, already in 1825 Hamilton was thus well aware that his "high aspirings" for a "lofty destiny" belonged to science and that poetry was, for him, a "luxury", a means to express "those finer and more delicate sympathies of our nature." Yet, in the beginning of the poem 'The Enthusiast', written in January 1826 and given hereafter, he wrote about himself: "At other times he loved [...] to pour His rapture forth in some fond gush of song; For the bright gift of Poetry was his." Hamilton thus appears to have believed that he would not become a great poet because, always striving for "excellence" and "ultimate success", he had chosen science over poetry, his "sterner powers" being science as he also mentioned in the poem. But that if he had chosen poetry he still could have become one.

And he was certainly not alone in this view; in October 1832 De Vere wrote: "I was delighted with your last poem, not only for the poetry of it, but also for the spirit in which it was written. I cannot tell you how much obliged to you I should be if you would send me more of your poetry. I think I told you that I constantly read your poems with my Æolian harp in the window; the unison of sound and song has often brought back scenes before my eyes with strange distinctness."<sup>27</sup>

<sup>26</sup> [Graves, 1882, pp. 192-195]

<sup>27</sup> [Ward, 1904, p. 11]. An Æolian harp is a wind harp.

## 3.2 Darkly changed

During the first half of the winter of 1826 Hamilton was, according to Graves, “seriously out of health” and he missed the January Examination of 1826; Hamilton would later refer “to his indisposition as a “long and painful illness”.” On this sickbed he wrote, on the 21<sup>st</sup> of January 1826, thus almost a year after the terrible news of Catherine’s engagement, a very sad poem<sup>28</sup> in which he described his deep despair.

### THE ENTHUSIAST.

He was a young enthusiast – he would gaze,  
 For hours upon the face of the night-heaven –  
 To watch the silent stars, or brighter moon,  
 Moving in her unearthly loveliness,  
 And dream of worlds of bliss for pure souls hid  
 In their far orbs. – At other times he lov’d  
 To listen to the mountain torrent’s roar;  
 To look on nature in her many forms,  
 And sympathize with all; to hold sweet converse  
 In secret with the genius of the stream,  
 The fountain, or the forest; and to pour  
 His rapture forth in some fond gush of song,  
 For the bright gift of poetry was his;  
 And in lone walks, and sweetly pensive musings,  
 He would create new worlds and people them  
 With fond hearts, and sweet sounds, and sights of beauty.  
 He had been gifted, too, with sterner powers –  
 Even while a child he laid his daring hand  
 On Science golden key, and ere the tastes  
 Or sports of boyhood yet had passed away,  
 Oft would he hold communion with the mind  
 Of Newton, and with awed enthusiasm learn  
 The eternal laws which bind the universe,  
 And which the stars obey. – As years rolled on,  
 Those high aspirings visited his soul,  
 Which genius ever breathes – he longed to leave  
 Some great memorial of himself, which might  
 Win for him an imperishable name.<sup>29</sup>

<sup>28</sup> [Graves, 1882, pp. 183-185], [Graves, 1882, p. 195]. This poem was published in September 1830 in the *Dublin Literary Gazette, and National Magazine* of September 1830, pp. 276-277. <http://babel.hathitrust.org/cgi/pt?id=chi.17194895;view=2up;seq=304> [Accessed 12 Nov 2015]. The poem is reproduced here in its published form. Yet, although Hamilton seems to have been very precise in how his writings were published, see for instance p. 74, and the printers were allowed to correct him in typesetting, see p. 127, it can be questioned if this was Hamilton’s original spelling: as can be seen in Graves’ biography, Hamilton and De Vere wrote ‘sympathise’ while Wordsworth and uncle James used ‘sympathize’. Instead of ‘honour’, for academic distinction the Latin word ‘honor’ was used: “Premiums and Certificates were the honors at the Term Examinations,” see [Graves, 1882, p. 148].

<sup>29</sup> This may sound contradictory to Hamilton’s lifelong struggle to remain humble, yet already



Fame was around him early, and his path  
 Was bright with honor; and he had a home,  
 And hearts that loved him, and could sympathize  
 In all his joys; he was, perchance, *too* happy:  
 For love had not yet swept with fiery hand  
 Over his chords of feeling, calling forth  
 For one short moment all their melody,  
 Then leaving them, for ever, mute and broken!

It was an August evening, and the youth  
 Had numbered nineteen summers when – a guest –  
 He came within an old romantic mansion,  
 With dark woods round. – He found a brilliant circle  
 And, (holier charm!) a happy family;  
 But, oh! how soon, and how entirely faded  
 All else, when his enthusiastic gaze  
 Had fallen upon a form of youth and beauty,  
 A maiden in her simple loveliness,  
 With locks of gold, and soft blue eyes, and cheeks  
 All rich with artless smiles and natural bloom: –  
 He sat beside her at the board, and still  
 He saw her only, thought of her alone –  
 But now it was on other charms he dwelt,  
 Her thoughts, her tastes, her feelings – and these were  
 So full of mind, of gracefulness, of nature,  
 Blended with such retiring timidity,  
 They rivetted the chain her beauty wove. –  
 They met again, too often for his peace;  
 Her image became twined into his being,  
 His musings were of her – of her his dreams –  
 She was the star of his idolatry,  
 But like a star he deemed her all too high  
 To bow to love for him, yet he hoped on:  
 Who hath not felt, how heavenly hope can live,  
 And freshen, even amid what should be death,  
 Like to the self-renewing bird of Araby,  
 That springs to life from its own funeral pyre?  
 One eve she woke the harp – the fond enthusiast  
 O'erpowered by feeling, sat him down apart  
 And hid his face – he could not look and listen! –  
 And then she sang a sweet and simple air,

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his father had written how Hamilton, if he would choose Trinity College, could “raise her character, and with it the character of your country,” see p. 32. Hamilton indeed saw it that way; in the poem on p. 72 he wrote how friends and country even had a “claim” on his thoughts. In September 1830 Hamilton wrote to Wordsworth: “[I] do believe myself to possess original power of mathematical thought [...], and [...] have long been impressed with a deep and enthusiastic conviction that with this power are connected a duty and a destiny, a task while I live, an influence after I am dead.” [Graves, 1882, p. 395]. But there was also a religious side to this; Hamilton did believe that he had been given a divine vocation to move on this “high path”, see p. 88.

Her voice aroused him, and with altered mood,  
 In silent trance of pleasure he hung o'er her;  
 But these were moments all too exquisite,  
 Too richly fraught with transport to last long.  
 The dream was to be broken – the chain sundered. –  
 He had not talked of love – his happiest hours  
 Were those he spent with her, yet then his words  
 Were only such respectful tenderness,  
 As if he were addressing a dear sister –  
 And she thought of him but as of a brother.  
 But *he* – he knew not that her troth was plighted,  
 And a few months should bring her bridal day  
 The tidings, when they burst upon him, crushed  
 Awhile to earth his energies of soul,  
 Or left them but to add new stings to agony –  
 New power of pain to torturing remembrance –  
 At length his bitter anguish passed away,  
 But left him darkly changed. – His mind awoke;  
 Its powers were unimpaired, and the affection  
 Of his fond friends could warm his bosom still,  
 And he seemed happy – but his heart was chilled;  
 He was the glad Enthusiast no more.

This poem was thus written after a very difficult year, yet, although Hamilton felt he had been “darkly changed”, his “mind awoke”, and later that year, 1826, he could study again at his usual levels. In a footnote, Graves cites a part of a letter Hamilton wrote to De Morgan in December 1853, about a month after Catherine’s death: “The Enthusiast was composed on a sick bed, during almost the only time of serious illness that I can remember, and one brought on chiefly by brooding on that youthful grief, notwithstanding great and successful efforts to maintain a high (indeed at that time brilliant) reputation in my own University. The gloom described at the close is therefore not a fair description, or anticipation, of my subsequent life.” In the course of 1826 he was also able to socialize again, amongst others with Catherine’s brothers, and write humorous essays. He said, in later years, that he had been depressed until 1832, but had been able to maintain a “philosophic calm”.<sup>30</sup>

Later Hamilton realized that if he had known earlier about Catherine’s engagement, he would have been able to protect himself better; in 1849 he wrote to an “intimate friend”:<sup>31</sup> “Though it would be ungrateful in me not to acknowledge that mine has been upon the whole a happy lot, and even in some respects an eminently favoured one, yet I have had some experience of many different forms of pain which have been diversified and enduring perhaps just enough to enable me to judge, in some degree, what the effect upon my mind would be, if trials of various sorts were deepened in intensity. And the result has been that I think the only pain against which science, literature, and philosophy would leave me undefended is precisely that very pain of the affections which I have so long been compelled to endure, and which

<sup>30</sup> [Graves, 1882, p. 182], [Hankins, 1980, p. 38], [Graves, 1882, p. 470]

<sup>31</sup> [Graves, 1885, p. 611]. See for the events leading to this letter subsection 8.2.2.

yet it seems to have been, humanly speaking, an extraordinary accident [...] that I did not escape from by a timely warning, or at least come to sustain in a mitigated form by hearing somewhat earlier of the engagement.<sup>32</sup> But for that very reason I am induced, and in a manner compelled, to recognise in it the infliction of a hand which is determined that I shall feel and own a Master – against whom I cannot defend myself, when He chooses that I shall suffer: as I might possibly be able, or might think myself able to do, at least within the kingdom of my own mind, against almost any other form of affliction or of assault or pressure from without.”

Graves combines this letter with a piece of a letter to Catherine a year earlier, in 1848, in which Hamilton wrote: “Of some great sorrow I am sure that the discipline was necessary to tame, in some degree, a spirit of self-reliance, which has not yet, perhaps, been sufficiently subdued, but against which I am learning, at least, to be more and more on my guard.”<sup>33</sup> Hamilton thus was able to almost mathematically approach his own feelings by contemplating the effect of various sorts of pain, and concluding that the pain he had felt after losing Catherine was indeed the worst. He regarded it as a sanctified affliction to learn from, to be aware of too much self-reliance and to stay humble, something he often referred to.

### Dunsink Observatory

In the summer of 1827 Hamilton, having again received extremely high scores, was appointed Andrews professor and therewith ‘Royal Astronomer of Ireland’, although he was only 22 years old and still had two more examinations to take. He had been given a choice to become a Fellow, with prospects of a higher income, but “to all this I could only reply, that so decidedly did I prefer the Observatory to Fellowship in point of liking, that I would have accepted it if it had been offered to me without any money at all.” Not that he was, according to Graves, “as eminent a practical Astronomer as might have been anticipated. This was due partly to the delicacy of chest which made the necessary nightly vigil especially trying to his health [...], but it was due principally to his predominant bias towards mathematics, and the increasing absorption in them which successful study involved.” But that was in hindsight.

Due to work which had to be done at the Observatory Hamilton could not immediately move in and Graves writes: “in one of his manuscript books I find the memorandum: “It was on Saturday, October 13th, 1827, that we came to the Observatory to reside.”” Since taking in sisters in case they were not married or otherwise occupied was customary then, he was accompanied by two of his sisters, Grace and Eliza, while Sydney, who was sixteen or seventeen, had accepted a teaching job near Belfast; she took Archianna, who was twelve years old then, with her. Hamilton lived at Dunsink Observatory for the rest of his life.<sup>34</sup>

<sup>32</sup> See chapter 8. From these remarks it can be seen that, however much he had been in love with her, Hamilton did not think that Catherine was his one and only true love in a predestined sense; had he heard earlier of her engagement, he would not have fallen so deeply in love with her.

<sup>33</sup> [Graves, 1885, p. 611], see also p. 271. In 1848 Hamilton and Catherine corresponded for six weeks, and although Hamilton here used the word ‘sorrow’ in its general sense, from Graves’ combination it can be deduced that it was due to his falling in love with Catherine and then losing her again. The idea of the necessity of owning a Master is reminiscent of the warnings of his father in 1819, of aunt Mary in 1822, and of Miss Arabella Lawrence in 1827, that so much praise as Hamilton received from such a young age could be disastrous for his character or career.

<sup>34</sup> [Graves, 1882, pp. 240-243], [Graves, 1882, p. 262], [Graves, 1882, p. 273], [Hankins, 1980,

### 3.3 A three-month journey

Not yet being able to move into the Observatory, in the latter half of July 1827 Hamilton went to visit Dr. Robinson (1792-1882) at Armagh Observatory to be introduced to the practicalities of observing. He started out well; apparently describing his arrival, on the 23<sup>rd</sup> of July he wrote, in Robinson's study, to Cousin Arthur: "I found Dr. R., Mrs. R., and a lady named Miss Hewison [a cousin of Dr. Robinson], sitting in the drawing-room; they got tea for me, and Dr. R. showed me some of his instruments before we went to bed. But the real rummaging or examining of these was the next day (Saturday), on which day he showed me his transits old and new, his equatorial instrument (like ours on the dome, but with a better frame), his large ten-foot reflector, made by Herschel, besides several smaller pieces of mechanism, astronomical or otherwise. He showed me his turning apparatus, and explained to me some things about it. He thinks it possible to make a speculum of the kind I want for my optical experiments. In short, I have hardly been doing anything since I came but cramming myself with information on various points of importance communicated in the pleasantest manner, either by what I may call experiment, which Dr. R. has shown me, or by books and papers which he has pointed out, or by his conversation. Yesterday evening, the sky being pretty clear, I observed some stars with the transit instrument, a thing which I had never done before.<sup>35</sup> I saw four stars successively; each passed (of course) the five wires, and I had to note down the time – that is, the second and fraction of a second – at which each of these twenty passages took place. If the instrument were quite correctly adjusted, the time of passing the middle wire would be what we want, that is, the right ascension of the star; but on account of the uncertainty of a single observation, we observe the time of passing the four side-wires (two at each side of the middle wire), and take the mean of all. The mean thus taken is to be then corrected by the help of a table, which is made for the purpose, and which is rendered necessary by small inequalities in the intervals between the wires. When we took the mean between my five observations on Capella (the first star which I observed), the result, on applying the correction before mentioned, appeared to differ by five seconds from the actual observation at the middle wire, which excited some dismay in us, and was of course set down to my inexperience in observing. But on farther consideration of the matter, Dr. R. exclaimed, Herr Hamilton (we had been talking about German), you are not so far wrong after all; for as Capella was below the Pole, the correction must be applied the other way. Accordingly, on making this change in the correction, the resulting difference came out only the twentieth part of a second, a time so minute as to be quite inappreciable to the most practised eye. So that if my first observation is to be taken as an omen, I may hope to attain considerable accuracy as a practical astronomer."

p. 48]. Hamilton had wanted to be assisted by his sisters after he saw how William (1794-1829) and Fanny Edgeworth worked together. In 1828 he wrote to Sydney that of the sisters of Maria Edgeworth "the one that I like best is Fanny, who has a very strong taste for Science, and is a great assistant to her brother William in observing and calculating, as I hope that you will be to me at some future time, unless you should be otherwise disposed of." [Graves, 1882, p. 292]. For Fanny Edgeworth see also footnote 4 on p. 53. Sydney would indeed join them later, and for some years both Grace and Sydney would be enthusiastic observers. [Hankins, 1980, p. 47].

<sup>35</sup> Transits were measured with great precision to determine, for instance, stellar parallax, which is in turn used to calculate the distance between those stars and the earth.

And although in the end he would not become an enthusiastic practical astronomer he would become rather good at it; after describing that Hamilton had, in August 1846, brought his eldest son William Edwin to Clapham, London, to enter a grammar school, Graves writes: "He had hoped during this visit to the metropolis to see the Observatory of Greenwich, under the guidance of Mr. Airy [(1801-1892), the Astronomer Royal of England], and afterwards to renew his intercourse with Dean [George] Peacock [(1791-1858)] at Cambridge, but he found that both these friends were then at Wiesbaden. He did, however, spend an hour at the Greenwich Observatory, "sucking the brains", as he afterwards writes, of Mr. Main [(1808-1878)], on the subject of practical astronomy. "I also amused myself," he adds, "and idled the younger Mr. Breen [(1826-1866)], by my taking a transit of Polaris over a side-wire in the day-time, without an eye-glass. I estimated the error of my observation at five seconds: Mr. Breen concluded it to have been less than three.""<sup>36</sup>

### Travelling with Mr. Nimmo

But Hamilton's visit to Armagh, of which there had been no strict schedule anyway, was shortened by a sudden change of plan which "led to a tour of travel beginning in Ireland, but passing on to England and Scotland, and rendered specially memorable to him by introducing him to his life-long friendship with the poet Wordsworth." Hamilton travelled around with Mr. Nimmo (1783-1832), a civil engineer whom he just had met at Armagh. Nimmo had persuaded Hamilton to come with him by telling him that he was "about to make some trigonometrical observations and measurements" and that he "should have opportunities of seeing various processes in practical astronomy, making observations, determining latitudes and longitudes, and seeing the Lakes of Killarney." Although Hamilton was still struggling to maintain his "philosophic calm", judging from his long letters to various family members he was often in very good spirits during this journey and indeed, afterwards he would call it "a tour for health and relaxation."

Hamilton saw places he had never been before and experienced much "scientific amusements"; while in Limerick he saw "a new bridge which, under the direction of Mr. Nimmo, is now in course of building, and a diving-bell for preparing the foundation, in which I went down to the bottom of the Shannon. The interior surface of the intended bridge interested me much, for it is built on a new plan, and affords a curious illustration of some mathematical principles; the descent, too, in the diving-bell served as an experiment to illustrate various theorems in hydrostatics and pneumatics, particularly the great condensation of the air by the increased pressure of the water, which was felt in a very painful manner. Nor were these my only scientific amusements. With the reflecting circle that Dr. Robinson had lent me, and some other astronomical instruments that Mr. Nimmo had brought with him, we took several observations of the sun's altitude, in order to find the latitude of Limerick and other places, being assisted by a pocket chronometer which Mr. Sharpe had lent me."<sup>37</sup>

<sup>36</sup> [Graves, 1882, pp. 247-248]. For Clapham School see p. 369, for Mr. Breen and taking the transits see [Graves, 1885, p. 524].

<sup>37</sup> [Graves, 1882, pp. 248-251], p. 64, [Graves, 1882, p. 275]. The Lakes of Killarney are in the southwest of Ireland. Sharpe, or Sharp, was the aforementioned Dublin clockmaker, see p. 49; this journey took place some years before Hamilton's 1834 *foray*, see also p. 49.

And he certainly could laugh; he wrote to Eliza: “Mr. Jones [(1806-1862)] (an apprentice of Mr. Nimmo) is an artist – draws, paints, models, &c., besides singing both pathetic and comical songs, and telling stories so humorously, that being in bodily fear for my sides I was sometimes obliged to cry out quarter.” The poet Robert Southey, whom Hamilton visited at Keswick, wrote about him: “We had also [...] Hamilton, the young professor of astronomy, who is so fond of the stars and so full of life and spirits that [...] I believe that for the sake of making a tour among the stars, he would willingly be fastened on to a comet’s tail.”<sup>38</sup>

Having parted company temporarily, on the 31<sup>st</sup> of August 1827 Hamilton wrote a letter to Nimmo from Liverpool; according to Graves this letter “proves how sensible he was of any defects in self-culture, and how his mind was set upon supplying them.” “My visit to Robinson and my trip with you have contributed to call forth a taste for practical knowledge in which before I was very deficient. I open my eyes more, and instead of being content with knowing a little of the mathematical theory of an operation, I find myself asking, could I do this myself? Other tastes, too, more or less connected with these newly-acquired habits of observation, are beginning to develop themselves. I have long looked on nature with a poet’s eye (if I may be permitted to use an expression which seems to imply a power, but which I use merely to denote a taste); I am now beginning to look upon it with a painter’s, too. Ludicrous as my present attempts in drawing may be, they serve to make me enjoy, in a far higher and more definite manner than formerly, the visible beauties of Nature and of Art. Things that before used only to give me a vague and passing pleasure, or at best used only to recall poetical recollections or awaken poetical musings, have now an individual, and if I may so call it, a pictorial interest; and I do not despair of yet acquiring a sufficient skill in the management of the pencil to be able to embody upon paper my sense of beauty seen, or my conception of beauty imagined. I even begin to hope that in my increased attention to external and sensible objects, I may improve my present vague perception of musical harmony into one more vivid and distinct. In short, amid the numerous impulses and impressions which I have received, during my last month of abstraction from anything like regular study, I sometimes fear lest I should lose that strong and deep devotedness to mathematical research which has so long characterised my mental habits, and which has been so closely entwined with my unbounded aspirations after excellence and distinction. This, however, is an effect of which I need scarcely entertain any very serious apprehensions. My mathematical tastes are too deeply rooted and too solidly founded to be in danger from the rivalry of more elegant perhaps, but surely less fascinating pursuits – less fascinating, I mean, to those who have experienced the delight of full intellectual employment, and who have felt the power with which that employment

<sup>38</sup> [Graves, 1882, p. 263], [Graves, 1882, p. 270]. Many people commented on Hamilton’s head, see for instance p. 45 and footnote 54 on p. 45, and Hankins gives a funny story: “My Dear Sir Wm. Hamilton. I have heard it reported (and the report said to rest on good authority) that [the phrenologist] Mr. George Combe [(1788-1858)] of Edinburgh [pronounced] your head to indicate the possession of intellectual powers but little better than those belonging to an idiot; and that this mistake (for a slight one it must be confessed to be) was made on the occasion of your being presented to him by Mr. Nimmo, an Engineer, as a young man whom he was about to take as an apprentice and whose fitness for this pursuit he wished to have judged of the form of his head.” [Hankins, 1980, p. 406 note 28]. The author of the letter was given as R.J. Evanson, but it was most likely Richard Tonson Evanson (1800-1871), Professor of the Practice of Physic in the Royal College of Surgeons in Ireland.

invests them. And I have no doubt but that when I return to the quiet of home and to the local influences of the Observatory, I shall return also to the scientific pursuits of my profession, with an energy and ardour, refined it may be, but not abated.”

In Liverpool Hamilton visited several acquaintances, among whom Miss Arabella Lawrence and her sisters. But even before having returned to the “quiet of home” Hamilton worked again on his mathematics; in 1832, when revisiting the Miss Lawrences, he wrote a letter to Eliza in which he described how he had to search for the house, “I came to the gate at last, and considering my unlocal memory I pride myself on remembering the place when I reached it. Many associations came on me at once, the proof sheets I had corrected in the walks, the poems I had thought of, the diagrams I had drawn on the ground.”<sup>39</sup>

### Wordsworth

Graves writes: “The [following] letter [to Eliza] is of peculiar interest, telling of [...] his first intercourse with Wordsworth. I have more than once heard the latter refer in terms of pleasurable reminiscence to the midnight walk in which the two oscillated between Rydal and Ambleside, absorbed in converse on high themes, and finding it almost impossible to part. The poem at the end, ‘It haunts me yet’ [...] is one of those which most reveal the deep movement of his affections, and his aspirations, proceeding from a source almost equally deep, after scientific excellence.”

In the second week of September 1827 Hamilton had “rejoined Nimmo in the Lake Country,” and on the 16<sup>th</sup> of September 1827 he wrote to Eliza that he saw so much on this travel that it would not admit of a “very successful delineation,” and that it could help if he would learn to draw. He told her of further travelling plans, “but first I must shut up this letter and go present to Southey an introduction which I have received from Wordsworth, with whom I spent the evening – I might almost say the night – of yesterday, for he and I were taking a midnight walk together for a long, long time, without any companion except the stars and our own burning thoughts and words. [...] We had met [Wordsworth] the evening before at Mr. and Mrs. Harrison’s, an amiable family who have a house near Ambleside, and who showed us a great deal of attention during our stay there. He (Wordsworth) walked back with our party as far as their lodge; and then, on our bidding Mrs. Harrison good-night, I offered to walk back with him, while my party proceeded to the hotel. This offer he accepted, and our conversation had become so interesting that when we arrived at his house, a distance of about a mile, he proposed to walk back with me on my way to Ambleside, a proposal which you may be sure that I did not reject; so far from it, that when he came to turn once more towards his home, I also turned once more along with him. It was very late when I reached the hotel after all this walking; and in returning I had some odd adventures which perhaps we may talk of another time; for instance, being alone, and being at no time very skilful in finding my way, I was near wandering first into a mill-pond, and secondly into a churchyard.”<sup>40</sup>

<sup>39</sup> [Graves, 1882, p. 257-259], [Graves, 1882, p. 535]. Hamilton had been working on his ‘Essay on Systems of Rays’ and was anxious for its receipt, [Graves, 1882, p. 253]. His sister Grace had indeed sent him a proof sheet which he received in Liverpool, [Graves, 1882, p. 260].

<sup>40</sup> [Hankins, 1980, p. 50], [Graves, 1882, pp. 260-261], [Graves, 1882, p. 264]. Reverend John Harrison (1761-1833), who was married to Alice Housman (ca 1755-1832), was a friend of Wordsworth. See p. 366 of Nicholson, F., Axon, E. (1915), *The older nonconformity in Kendal*. Kendal: Titus



### 3.3.1 Maintaining a philosophic calm

From the letters written during his journey it can be seen that Hamilton was able to maintain his “philosophic calm” “with lucid intervals indeed,” yet every now and then it was difficult, his philosophic calm was often feeble. In a poem called ‘It haunts me yet’, which he “picked up at Ambleside” as he wrote to his sister Eliza, he described how he had to overcome the loss of what he had hoped to be a “sweeter prize” than “immortal fame”, and addressed Wordsworth who had apparently told him of a lost love of his own.<sup>41</sup>

IT HAUNTS ME YET.

It haunts me yet, that dream of early Love!  
 Though Passion’s waters toss me now no more;  
 And though my feelings, like the ark-banish’d dove,  
 In wandering that sinking ocean o’er,  
 Hail with sad joy signs of a coming shore,  
 And oft would flee to some fresh-springing leaves  
 Of hope that seem to promise rest in store,  
 That seeming rest still their tired flight deceives,  
 And drives them back again where unfreed Memory grieves.

Aye, ’tis unfreed! Time may not quite erase  
 Affection’s gravure on the unworn mind;  
 Or waves of change or chance sweep out the trace  
 Young Fancy’s elfin footsteps leave behind.  
 ‘Tis not in Duty’s might, nor Will’s, to unbind  
 Wholly that chain Hope’s seraph hand once wove;  
 When all Imagination’s hues combined,  
 And the Mind’s powers, and Heart’s, together strove  
 To frame one glorious shrine for bright and deathless Love,

Where his entire divinity might dwell  
 And his unclouded presence fill the soul;  
 While at the altar’s foot a bubbling well  
 Of ever-gushing Phantasy should roll  
 Fresh rills of Joy and Beauty o’er the whole  
 Yet unmarr’d Paradise of happy thought;  
 And unoppressed as yet by the control  
 Of Earth-born care, Enthusiasm ever brought  
 From out her fragrant store some golden censer fraught

With living incense for that cherished fane  
 Whereof she was th’ unwearied minister:  
 And dreams of Purity without a stain,

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Wilson. <https://archive.org/details/oldernonconformi00nichiala>.

<sup>41</sup> See p. 64, p. 121, [Graves, 1882, pp. 265-266]. Wordsworth’s lost love may have been Annette Vallon (1766-1841), a French woman with whom he had a daughter, Caroline (1793-1862). Note added 2017: Thomas and Ober suggest that the “mighty Spirit” in the poem was Newton, which indeed seems very logical. Also Newton may have suffered an “early disappointment”, see p. 120 of Thomas, W.K., Ober, W.U. (1989), *A Mind For Ever Voyaging*. The University of Alberta Press.



And Excellence surpassing human, there  
 Waved their glad wings as in their native air.  
 Days of Emotion, ye are not forgot!  
 The thought of you is twined with whatsoe'er  
 Of more than common happiness my lot,  
 Or more than common grief, to this thrill'd breast had brought.

And THOU too, mighty Spirit! whom to name  
 Seems all too daring for this lowly line;  
 Thou who didst climb the pinnacle of Fame,  
 And left'st a memory almost divine!  
 To whom the heavens unbarred their inner shrine,  
 And drew aside their sanctuary's veil,  
 While Nature's self disclosed her grand design,  
 And smiled to see thee kindle at the tale,  
 And before Science' sun thine eagle eye not quail:

All reverently though I deem of thee,  
 Though scarce of earth the homage that I pay,  
 Forgive, if 'mid this fond idolatry  
 A voice of human sympathy find way;  
 And whisper that while Truth's and Science' ray  
 With such serene effulgence o'er thee shone,  
 There yet were moments when thy mortal day  
 Was dark with clouds by secret sorrow thrown,  
 Some lingering dream of youth – some lost beloved one.

If then thy history I read aright,  
 be my great Example! and though above,  
 Immeasurably above, my feeble flight,  
 The steep ascent up which thy pinions strove,  
 Yet in their track my strength let me too prove;  
 And if I cannot, quite, past thoughts undo,  
 Yet let no memory of unhappy love  
 Have power my fixed purpose to o'erthrow,  
 Or Duty's onward course e'er tempt me to forego!

No pause for me, no dallying in the race  
 To which I've vow'd me long – though Boyhood sought  
 A sweeter prize<sup>42</sup> – which I must now erase

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<sup>42</sup> This "sweeter prize" was Catherine, which can be seen through the last part of a poem called 'On College Ambition'. In the summer of 1824 Hamilton had won the highest score in classics, and he was told over and over again how unusual this was. Also having been examined in science, the night between the examinations he had not slept; he was tired and it slightly frightened him: "I am in some danger of having my head turned." [Graves, 1882, p. 158]. Graves then inserts the poem, in which Hamilton asked himself if "applaudings" and "wond'ring gazes of the crowd" would be enough to "leave joy behind". But he already knew they would not; he continued:

The anxious friend's approving eye;  
 The generous rival's sympathy;  
 And that best and sweetest prize  
 Given by silent Beauty's eyes!

From the bright catalogue that Hope had wrought;  
 When numbering o'er her starry heaven of thought  
 She hail'd, amid the lesser glories there,  
 One, as the ruling planet of my lot,  
 A peerless influence o'er my fate to bear,  
 And guide me to the port of joy or fond despair.

That hope indeed hath parted from me now,  
 That gentle planet guides my barque no more;  
 But shall Despondence therefore blank my brow,  
 Or pining Sorrow sickly Ardour o'er?  
 Is there no haven left me to explore?  
 Have Friends and Country on my thoughts no claim?  
 Knowledge and Virtue no ungathered store?  
 Is it no prize to win immortal Fame,  
 And leave to Mankind's love a bright unsullied Name?

There is a monitor within my heart,  
 A secret voice that passeth not away;  
 A burning Finger that will not depart  
 But urges onward still and chides delay;  
 Summoning to excellence's onward way;  
 And though yet feeble, I will follow still,  
 Till every cloud be lost in perfect day,  
 And I have reached the summit of that hill  
 Where more than earthly light my strengthened gaze shall fill!

According to Graves in September 1827 "Hamilton sent these lines [to Wordsworth] while they were fresh from his heart, and before time had been allowed for calm review and correction, to invite the sympathy, but at the same time to meet the criticism, of Wordsworth." But Hamilton had also sent this poem to Miss Arabella Lawrence who reacted quite differently. According to Hankins she wrote Hamilton a letter on the 22<sup>nd</sup> of October, about a week after Hamilton moved into the Observatory; "she saw signs of a dangerous morbidity, and warned him against "indulging too often this train of thought," even though his abstract studies provided a "never failing antidote against its influence.""<sup>43</sup>

### Wordsworth's criticisms

Still in September Wordsworth reacted to Hamilton's poem: "You will have no pain to suffer from my sincerity. With a safe conscience I can assure you that, in my

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These are transports true and strong,  
 Deeply felt, remembered long:  
 Time and sorrow passing o'er  
 Endear their memory but the more.

Graves gives this poem before introducing Catherine and the Disney family, without giving a date, only the year, 1824. But combining this poem with lines from the poem 'A Farewell' on p. 55 which certainly was about Catherine, "O'er which my fancy but too fondly bent; – The prize my young ambition to invite," makes it obvious that he was writing about her.

<sup>43</sup> [Hankins, 1980, p. 52, p. 406 note 32]. It is not entirely certain that she made this last remark.

judgment, your verses are animated with true poetic spirit, as they are evidently the product of strong feeling. The sixth and seventh stanzas affected me much, even to the dimming of my eye and faltering of my voice while I was reading them aloud. Having said this, I have said enough. Now for the *per contra*. You will not, I am sure, be hurt, when I tell you that the workmanship (what else could be expected from so young a writer?) is not what it ought to be; even in those two affecting stanzas it is not perfect – “Some touch of human sympathy find way And whisper that while Truth’s and Science’ ray With such serene effulgence o’er thee shone.” Sympathy might whisper, but a touch of sympathy could not. “Truth’s and Science’ ray,” for the ray of Truth and Science, is not only extremely harsh, but a “ray shone” is, if not absolutely a pleonasm, a great awkwardness; a “ray fell” or “shot” may be said, and a sun, or a moon, or a candle shone, but not a ray. I much regret that I did not receive these verses while you were here, that I might have given you *viva voce* [with living voice] a comment upon them which would be tedious by letter, and, after all, very imperfect. If I have the pleasure of seeing you again, I will beg permission to dissect these verses, or any other you may be inclined to show me; but I am certain that, without conference with me, or any benefit drawn from my practice in metrical composition, your own high powers of mind will lead you to the main conclusions.”

Wordsworth ended his criticisms by “dissecting” the lines “But shall despondence therefore blench my brow, Or pining sorrow sickly ardour o’er?” which were, according to him, “two of the worst verses in mere expression. Blench is perhaps miswritten for blanch; if not, I don’t understand the word. Blench signifies to flinch. If blanch be the word, the next one ought to be “hair”; you cannot here use brow for the hair upon it, because a white brow or forehead is a beautiful characteristic of youth. “Sickly ardour o’er” was, at first reading, to me unintelligible; I took sickly to be an adjective joined with ardour, whereas you mean it as a portion of a verb, from Shakespeare’s “sicklied o’er with the pale cast of thought,” but the separation of the parts, or decomposition of the word, as here done, is not to be endured.

“Let me now come to your sister’s verses, for which I thank you. They are surprisingly vigorous for a female pen, but occasionally too rugged, and especially for such a subject; they have also the same faults in expression as your own, but not, I think, in quite an equal degree. Much is to be hoped from feelings so strong, and a mind thus disposed.” Yet, Wordsworth seems to have thought that Hamilton’s poetry could reach high levels if he would work hard on it since he ended his letter with a warning: “But again, my dear sir, let me exhort you (and do you exhort your sister) to deal little with modern writers, but fix your attention almost exclusively upon those who have stood the test of time. You especially have not leisure to allow of your being tempted to turn aside from the right course by deceitful lights.”<sup>44</sup>

### Hamilton’s defence

Hamilton defended himself in December 1827, two months after having returned from the journey with Nimmo: “I have been up all night, observing; but as I heard yesterday evening that Mr. Johnston intended to write to you to-day, I cannot forego the opportunity of answering your very friendly letter, which I received on my return

<sup>44</sup> [Graves, 1882, pp. 266-268]

from Scotland, and to which I feel that I ought to have long since replied.<sup>45</sup> The only excuse that I can offer for my silence is that, on returning from my summer of absence and idleness, I found so much to be done in all my affairs, terrestrial and celestial, as completely to occupy and engage me. The removing with my sisters to a new house, and all the various petty cares that attend such a removal; the superintendence of the printing of an *Optical Essay*, which, being full of algebraic symbols, has yielded more than the usual harvest of errors of the press, and required more than usual vigilance on the part of the author; the laborious though highly delightful duty of observing the heavens, which is perhaps more fatiguing to a young observer than to an old one, because the former has continually to employ special acts of attention and thought on objects which to the latter become in a great degree matters of habit and routine;<sup>46</sup> and the uncertainty in which I have been, until within this day or two, whether I would be required by the University to deliver a course of Lectures during the present Term – all these things have conspired to leave me little leisure or inclination for writing, since my return from that very pleasant excursion, one of the principal pleasures of which was my meeting with you and your family; another of those pleasures, and one which I shall never forget, being my introduction through your means to Mr. Southey and his household at Keswick.

“And now, after this enormously long sentence by way of excuse for my silence, let me thank you, my dear Mr. Wordsworth, for the kindness and freedom of your criticisms upon the verses which I submitted to your notice. The only one of those criticisms which I shall venture in any manner to combat relates to the line, “But shall despondence therefore blench my brow.” The effect of despondence, to which I here alluded, although (I confess) with but too little perspicuity, was not anything of premature old age or gray hairs, as you appear to have conceived; but only that sickness of heart which arises too often from hope disappointed, as well as from hope deferred, and which I have attempted to denote by its outward emblem and not unfrequent natural accompaniment, the morbid paleness of the brow. I admit, however, that if the idea can at all abide the test of criticism, still the word ought to be altered, either (as you propose) to blanch, or perhaps to pale, used as an active verb. But though I may attempt to justify a particular passage of this kind, I am, I assure you, sincerely conscious of the general defects of my poetry, and deeply feel the little likelihood that there is of one so devoted to Science as myself ever attaining a high place in the ranks of poetical composition. Seldom indeed have I attempted to place

<sup>45</sup> Letters had to be sent through someone then, and this thus was an opportunity. The birth and death years of Mr. Johnston do not seem to be publicly known. He was, most likely, the author of Johnston, W. (1857), *The earlier poems of William Wordsworth. Corrected as in the latest editions. With preface, and notes showing the text as it stood in 1815*. London: Edward Moxon. As well as the subject of Milne, M. (1995), A Neglected Paternalist: William Johnston of “Blackwood’s Magazine”. *Victorian Periodicals Review*, vol 28 (1): 11-26.

<sup>46</sup> According to Graves, Hamilton suffered from bronchitis and tended to become ill from observing in the nights; one of the things he thus also had to learn was how not to become too cold. In 1829 he wrote to his aunt Mary Hutton: “A line to tell you that, having had a good deal of observation for some time past, I always muffle myself up, and have found your dressing-gown very comfortable. I cannot say so much for the beautiful fur cap, which, as well as my hat and college cap, I find badly suited for hard work. In their stead I wear a night-cap, and over it a Welsh wig, which make me a comical figure.” [Graves, 1882, p. 326]. But Hamilton only observed much during the first few years; observations were marked by the one who did them, and according to Hankins by 1828 the ‘H’s already “thin out” while more ‘T’s appear, from Thompson. “Particularly in 1831” Grace and Sydney were doing a large part of the observations. [Hankins, 1980, p. 47].

myself among those ranks at all, except in some moments of strong and excited feeling – moments such as the spirit of Poetry delights to cherish, but which the sterner spirit of Science still seeks to check and subdue. Yet let me not speak of the pursuits and contemplations of Science as if they had not also power to stir the passions and affections of humanity. For Science, as well as Poetry, has its own enthusiasm, and holds its own communion with the sublimity and beauty of the Universe. And in devoting myself to its pursuits, I seem to myself to listen not so much to the voice of Ambition or of Patriotism, which would prompt me to labour for the reputation of myself or of my country, as to the promise of a still purer and nobler reward, in that inward and tranquil delight which cannot but attend a life occupied in the study of Truth and of Nature, and in unfolding to myself and to other men the external works of God, and the magnificent simplicity of Creation.”

It can, from this letter, easily be guessed that Hamilton must have been very happy when in February 1833 Wordsworth wrote: “Your Lecture [on Astronomy] I have read with much pleasure. It is philosophical and eloquent, and instructive, and makes me regret, as I have had a thousand occasions of doing, that I did not apply to Mathematics in my youth. It is now, and has long been, too late to make up for the deficiency.” Graves comments: “The letter [...] from Mr. Wordsworth tells the impression made by the Lecture upon one not too easily to be pleased in regard either to the style or substance of literary work. The passage is interesting in connexion with the fact that Hamilton had previously won over Wordsworth to a higher appreciation of Science than he had previously arrived at, by proving to him that in the region of discovery it called for the exercise of the imaginative faculty. It strikes one with surprise to hear Wordsworth lamenting that he had not in his youth studied mathematics.” But it had costed Hamilton quite some effort to get this far.<sup>47</sup>

### 3.4 Science and poetry

According to Wayman, “Wordsworth paid three visits to Hamilton in Dublin, the last being in 1838, when he was sixty-eight years old.”<sup>48</sup> The first visit was paid in August 1829, and according to Graves “his first object, upon arrival, was the Observatory and its inmates; thence he proceeded to Killarney; and afterwards availed himself of the invitation to Edgeworthstown of which Francis [Beaufort] Edgeworth [(1809-1846)] had been the eager penman, writing in the name of his mother and sister. At Edgeworthstown Hamilton again met Wordsworth, spending a few days in his company before the poet’s return to England by the northern coast.”

Eliza described how she saw Wordsworth for the first time, coming back from a walk with Hamilton in the grounds of Abbotstown: “I looked, and saw walking up the avenue with William a tall man, with grey hair, a brown coat, and nankeen trousers, on whom Smoke, our black greyhound, was jumping up in a most friendly manner, not by any means his wont with every stranger. In a few minutes Wordsworth was in the room with us; “Allow me to introduce my sisters to you, Mr. Wordsworth,” said William, and so we met. Then he and my brother sat down to luncheon, being informed that we had had ours. I stationed myself in one of the windows so as to command a good view of him, my sisters seating themselves rather nearer to him. He was

<sup>47</sup> [Graves, 1882, pp. 283-284], [Graves, 1885, p. 35], p. 154. For the Lectures see p. 336.

<sup>48</sup> [Wayman, 1987, p. 57]

evidently what I would call a naturally very reserved man, and in every way as complete an opposite to my preconception of him as anything could be. [...] There was a slight touch of rusticity and constraint about his perfect gentlemanliness of manner, which I liked – an absence of that entire ease of manner towards strangers, which always tends to do away my sympathy with any mind, particularly a gifted one.”

Having dressed for dinner, “when we next entered the drawing-room, we found Wordsworth already there, and reading something to William, who sat by him listening intently. [...] It was his own “Excursion” he was reading, in consequence of a discussion having arisen between them, in which William had alluded to a passage in that poem which, as well as I could collect, did not quite please him by its slight reverence for Science. Wordsworth first finished the passage, in a very low, impressive tone, moving his finger under every line as he went along, and seeming as he read to be quite rapt out of this world. [...]

“My brother said of some passage that, “so far as it went” he quite agreed with it, but “he would add a good deal more.” “I am sure you would,” said Wordsworth, with a good-humoured smile; “and if you will allow me to explain my sentiments first, I shall be glad to hear yours afterwards.” He then entered very much at large on the scope of his design, repeating that Science, when legitimately pursued for the purpose of elevating the mind to God, he venerated. The only class of scientific persons against whom he had directed his battery were those whom he would compare to the pioneers of an army, who go before the hero, certainly preparing the way for him, and cutting down the obstructions that oppose his march, but who themselves have no feelings of lofty enthusiasm, or of any kind but the hope of reaping part of the plunder and sharing in the profit of success. “What,” he said, “would have been the use of my praising such men as Newton? They do not need my insignificant praise, and therefore I did not allude to such sons of Science.”

“My brother argued that although he quite admitted that, were the faculty of Imagination to be done away with in man – could that be – he would be left indeed, as Wordsworth said, a most inferior being; still he thought the Intellectual faculties held equal rank at least with the Imaginative. But I could not help smiling at his own exemplification of the indestructibility of Imagination in any mind, but above all in those of a high order, when he told Wordsworth that he believed Mathematics to be a connecting link between men and beings of a higher nature; the circle and triangle he believed to have a real existence in their minds and in the nature of things, and not to be a mere creation or arbitrary symbol proceeding from human invention. Wordsworth smiled kindly, but said that reminded him of the Platonic doctrine of the internal existence in the marble of those beautiful forms from which the sculptor was supposed only to withdraw the veil. William also smiled good-humouredly.”<sup>49</sup>

After having given Eliza’s description Graves writes: “it is remarkable that the immediate effect of his intercourse with Wordsworth, during the visit of the latter to Ireland, was to cause him more definitely than before to arrive at the conclusion that for him in the future his path must be the path of Science, and not that of Poetry; that he must renounce the hope of habitually cultivating both, and that, therefore, he must brace himself up to bid a painful farewell to Poetry. Probably his conversations with the veteran poet brought home to him the fact, which Wordsworth’s letters had previously insisted on, that Poetry is an art as well as an inspiration; that it

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<sup>49</sup> [Graves, 1882, p. 311-314]

demands, if excellence is to be attained, laborious and continued study; and that Poetry alike and Science are Muses that refuse to be successfully wooed by the same suitor." And in October 1829 Hamilton actually wrote a 'farewell poem' to poetry, a farewell to the thought that he would ever be able to "attain a high place in the ranks of poetical composition;" science was always his inevitable first choice.<sup>50</sup>

TO POETRY.

Spirit of Beauty and of tender joying,  
Who goest forth deformity destroying,  
And making of the earth on which we stand  
A glad elysium and a fairy-land;  
Thou who keepest festival  
In the mind's ideal hall,  
Where, as the servants of thy regal state,  
The forms of all things grand or lovely wait!

O, if this unethereal heart have given  
Worship too little touched with fire from heaven,  
If a devotion all too cold and dull  
To thee, the ardent and the beautiful;  
Yet in thy love and pity spare  
To leave the temple wholly bare,  
To let remembered visions quite decay,  
And all the old revealings fade away!

O, linger near me! though thou may'st disdain  
By my ineloquent lips to breathe thy strain;  
Thy minister altho' I may not be,  
To win the wild world by sweet minstrelsy:  
Yet from my own, my inmost soul,  
Thy chariot, Spirit, do not roll,  
Nor leave those chambers dark and desolate,  
Where long ago thy glorious presence sate!

For hast thou not been with me long ago?  
When o'er the cataract that raged below  
Breathless I hung, or while in silent awe  
Night's infinite magnificence I saw;  
Or when, in many a thoughtful hour,  
I felt thy sweetly troubling power,  
Or heard the song of thy inspired band,  
The holy ones and high of every land?

Spirit of Beauty! though my life be now  
Bound to thy sister Truth by solemn vow;  
Though I must seem to leave thy sacred hill,  
Yet be thine inward influence with me still:  
And with a constant hope inspire,

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<sup>50</sup> [Graves, 1882, pp. 314-317]. See for instance the 1825 letter to Miss Lawrence, p. 60.



And with a never-quenched desire,  
 To see the glory of your joint abode,  
 The home and birth-place, by the throne of God!<sup>51</sup>

Graves comments: "The old bard used often to say that it was good for themselves that many men should write verses, but that only the few who recognised poetry as deserving and requiring the consecration to it of a life could ever be Poets in the higher sense. He was unwilling, therefore, that his young friend, whose powers he admired, should belong to the inferior class; not denying, perhaps, that had he been able to give an undivided attention to Poetry, he might have attained to the higher, but convinced that this was impossible for one whose professional obligations were such as Hamilton's. His influence, accordingly, was exerted in discouragement of the cultivation by Hamilton of his poetic vein, whilst he was not unwilling that he should give that relief to personal feeling in the successive emergencies of life, which only poetic expression affords to those who possess, in some measure, the accomplishment of verse; and, in poetic expression of this kind, it will be seen that Hamilton did actually indulge with no little copiousness before many months." And it also did not stop Wordsworth to comment on Hamilton's verses, as he again did on this poem.

But next to being critical, Wordsworth was also remarkably complimentary; after giving some criticisms to the poem 'The Enthusiast', which Hamilton apparently sent him early in 1829, Wordsworth wrote: "After having directed your attention to these minutiae, I can say, without scruple, that the verses are highly spirited, and interesting and poetical. The change of character they describe is an object of instructive contemplation, and the whole executed with feeling." And in 1830 he wrote about a poem Hamilton had written on the death of "Miss Ellis of Abbotstown" that "The lady whose death you deplore in your elegant verses, I recollect most distinctly, and do sincerely condole with her parents in their affliction."<sup>52</sup>

<sup>51</sup> Still in October 1829 Hamilton wrote to Francis Edgeworth: "You ask how I can separate Truth and Beauty, and think that I mean by these two sisters the faculties of Reason and Imagination, such as they are defined by Coleridge. I do not now remember Coleridge's Aphorisms about these faculties, but perhaps I can give some illustrations of my own meaning from your example of the monkey. You say that the monkey is not so well suited as the lion or gazelle to the similes or associations of a poet, yet is equally fitted to its place, equally self-consistent. Now it is this self-consistency, or consistency with its place in the universe, that comes properly under my head of Truth; its fitness or unfitness to excite sublime or tender emotions in the human mind, I refer to that of Beauty. The one may be said to be perceived by the mind, the other by the heart, of man. I believe that these two views of Nature have a mysterious and intimate connexion, which, at the end of my verses, I express a deep desire to have further unfolded to me; but they do not seem to be identical with each other, and I think that we may correctly say of the scientific and (of) the poetical man, that, while each contemplates both Truth and Beauty, yet the former habitually looks at things, or thoughts, rather as true than as beautiful; the latter as beautiful rather than as true. As another matter of opinion, rather than of taste, in connexion with the verses that I sent you, I may remark that I still think it part of the office of a poet "to win the wild world by sweet minstrelsy"; to diffuse through minds less gifted than his own a sense of tenderness and beauty and elevation, although the higher part of his office may be the communing with those kindred spirits who compose his "fit though few", and who are interested in his esoteric mystery." [Graves, 1882, p. 346].

<sup>52</sup> [Graves, 1882, p. 327], [Graves, 1882, p. 379]. Hamilton had written to Wordsworth about her earlier: "You remember, probably, our walk through Mr. Ellis's grounds, and our dining together at his table; and your heart is too full of exercised humanity not to feel some concern on being told that Miss Ellis, who sat next me at dinner, and was even then unwell, has since fallen into a decided decline, which leaves little hope of her escaping a fate that has already bereaved her parents of nearly all their children." [Graves, 1882, p. 355].



Wordsworth was indeed rather optimistic about Hamilton's poetry; he does seem to have believed that Hamilton could have become a great poet if he had chosen poetry over science. But Graves is less positive and can hardly stop criticizing Hamilton's poetry;<sup>53</sup> for instance, first judging about the poem 'It haunts me yet' that Hamilton should, in part, have followed Wordsworth's advice and writing that "it is to be regretted that Hamilton found himself unable to make corrections of the two flaws next mentioned," later he gives the original version of the poem 'The Enthusiast' writing: "In late copies of this poem, yielding to a criticism of Mr. Wordsworth, who found fault with the sound of the last line, [Hamilton] changed it to "He was the glad Enthusiast no more", and this necessitated a corresponding change in the first line. Believing the alteration not to be an improvement, I have preferred to give these lines as they were originally written." Perhaps Graves was right and it was not an improvement, yet it was Hamilton's poem and he did change it.

Hamilton does not seem to have been too shaken by Wordsworth's criticisms; Wordsworth had openly recognized his poetic merits, and he knew that he would never work on poetry as he did on his mathematics as was seen already in his 1825 letter to Miss Arabella Lawrence. He did not apply many of the changes Wordsworth had suggested, and as Graves remarked earlier, Wordsworth's criticism did not the least withheld Hamilton of sending him his poems; in November 1831 Hamilton wrote to Wordsworth: "As Keats exclaimed, "O for ten years that I may overwhelm myself in Poesy!" so you will perhaps exclaim – O for some pause, that Mr. Hamilton may not overwhelm me with his verses! Occiditque legendo [And kills him by his reading]." <sup>54</sup> Wordsworth reacted: "You send me showers of verses, which I receive with much pleasure, as do we all; yet have we fears that this employment may seduce you from the path of Science which you seem destined to tread with so much honour to yourself and profit to others. Again and again I must repeat, that the composition of verse is infinitely more of an art than men are prepared to believe, and absolute success in it depends upon innumerable minutiae, which it grieves me you should stoop to acquire a knowledge of."

Despite the criticisms, or because they were accepted so well, their "correspondence was carried on with animation and increase of mutual confidence and affection. Hamilton's letters contain characteristic passages on the subject, which moved him so much, of his own relations to poetry and science, and upon contemplation and action; and the letters of Wordsworth exhibit a pleasant freedom of style, approaching playfulness, which is not usual with him, and which may be taken as a proof of his special liking for his correspondent." Indeed, Wordsworth had finished his 1827 letter writing: "My household desire to be remembered to you in no formal way. Seldom have I parted – never, I was going to say – with one whom, after so short an acquaintance, I lost sight of with more regret. I trust we shall meet again." <sup>55</sup>

<sup>53</sup> There seems to be a logical, but uncorroborated, explanation for Graves' continuing criticisms: while writing the biography in the 1880s there may still have been condescending comments about Hamilton's poetry. His mathematics was criticized by people who did not understand it, see for instance footnote 23 on p. 340, and perhaps for them criticizing his poetry was easier. Graves' criticisms may then have been attempts to show his readers how to interpret Hamilton's poetry.

<sup>54</sup> [Graves, 1882, p. 269], [Graves, 1882, p. 185], [Graves, 1882, p. 486]. The quote is from Horace, and the translation can be found on p. 84 of Bagot, D. (1880), *The Art of Poetry of Horace with Free and Explanatory Translations in Prose and Verse*. London: William Blackwood and Sons. <https://archive.org/details/artofpoetrywithf00horauoft>.

<sup>55</sup> [Graves, 1882, pp. 491-492], [Graves, 1882, p. 368], [Graves, 1882, p. 268]

### Hamilton about his poetry

Hamilton had strong convictions about poetry, its inherent truth of feeling<sup>56</sup> and its usefulness to learning to know one's own nature; in 1829 he wrote in one of his memoranda: "the chief object of the poet [is] to show the natural in the supernatural, by placing a human being under circumstances contrary to human experience, yet attributing to him feelings which we recognise as true; that is, which we are conscious we should ourselves have if we were placed under the circumstances supposed. This truth of feeling I considered to be the highest truth of poetical composition: I thought that one of the chief advantages of poetry consisted in making us acquainted with our own nature, by exercising our understanding and consciousness in the discernment of truth of this kind. Romances may have such truth, and by it may give exquisite pleasure. Novels and ordinary poetic fiction must combine with this truth the observance of that inferior kind which consists in outward probability – the truth of circumstances and incidents, as well of character and feeling. A practised taste comes to be offended by a violation of this outward probability in a novel, but need not be so in a romance, or professedly supernatural poem."<sup>57</sup>

And in January 1852 he wrote to De Morgan who had given some criticisms on two sonnets: "If, among your many and deep researches, you have made psychology, as a sort of branch of natural history, one of them, you may feel some little interest in the following problem, which has often puzzled myself. Among the persons who know anything about my existence and my writings, I suppose that the majority would admit me to be a mathematician; while all, or nearly all, would say that I could only be regarded as a poet by courtesy. Does it not seem then to contradict one of the very tritest sayings about human nature, that I care little, or not at all, about criticisms upon my poetry, such as it is, while I own myself to be actually sensitive on the score of my mathematics? Wordsworth did me the honour to cut up, in a more slashing style than yours, some of my early poems. I think that I was less flattered than indifferent although I did most highly prize the advantage of an intimacy with him. Slash away at my sonnets; but spare me, if you honestly can, a little praise for the quaternions."

After Hamilton's death in 1865 Charles Graves wrote that Hamilton's "poetical compositions were the genuine outpourings of a noble heart and fervid imagination, characterized by a depth of thought and elevation of sentiment which compensated for occasional defects in artistic execution." Which actually seems to be the most accurate description of Hamilton's poetry.<sup>58</sup>

## 3.5 Criticisms

Next to criticizing Hamilton's poetry, Graves is also very critical about Hamilton himself. In the process of describing the year 1829, after mentioning a visit he made to the Observatory in November 1829 and seemingly freely associating, he gives a

<sup>56</sup> That was the stance of the Romantic poets; De Vere wrote in his autobiography that Wordsworth "was never tired of insisting on it that the soul of poetry was Truth." [De Vere, 1897, p. 124].

<sup>57</sup> [Graves, 1882, p. 345]. This seems to be similar to his ideas about the differences between theoretical and applied science where mathematics, or theoretical science, would be compared to a romance, and applied science to a novel, see p. 97.

<sup>58</sup> [Graves, 1889, p. 223]

sort of overview of how he saw Hamilton. Parts of this overview are friendly, parts are descriptive, but other parts seem to be almost destructive, and, perhaps apart from an honest “desire to be just and truthful” as he wrote in the preface to the first volume, it is hard to understand what Graves’ intentions were to do this, what he hoped to accomplish in the light of the rest of the biography. It is given in full since it provides much insight into Graves’ opinions about Hamilton.

“Before the period now arrived at, Hamilton had extended to myself and other members of my family the feeling of friendship with which he had, from the beginning of his college life, regarded his class-fellow, my eldest brother. To this kind feeling I owed an invitation to spend at the Observatory some days at the beginning of November, 1829 – an invitation accepted with delight by one already attached to the giver, and just released from the examination hall and looking forward to astronomy as his next subject of study in Science. My object in mentioning this visit is that it gives me opportunity of recording my remembrance of Hamilton, as seen and enjoyed by me in the free intercourse of his home. As to myself, I brought a general apprehensiveness and a sincere, I may say a lively, interest in the various aspects of truth, and a love of poetry, but no special talent for mathematics, and no originality of power in any line. I could, therefore, feel the more deeply how gracious was his nature, when, more as a companion than a teacher, he devoted himself, in the hours we spent together, to giving me wide and clear views in science and in metaphysics; listened patiently to every difficulty, and carefully disposed of it; and gladly welcomed any reply that showed something more than mere reciprocity, and encouraged the effort of the learner to make independent advances.

“A peculiar charm of Hamilton at this time, and it never quite departed from him, was a boyish cheerfulness which irradiated all his intellectual activity, and yet was never out of harmony with earnest and serious thought; smiles and witticisms gleamed and bubbled on the surface of the deepest current of discussion; and this rendered his oral teaching delightful, even when, as often happened, it became too deep for the capacity of his hearer. Often was the Observatory garden the scene of the private lectures I enjoyed at that time and afterwards; there teacher and learner were more than peripatetics, for frequently both drove hoops abreast round the walks, as they carried on talk about astronomy or optics; and flowers and poetry, reminiscences of Brinkley and Wordsworth (from each of whom a walk was named) relieved agreeably the severer subjects.<sup>59</sup> Another favourite haunt was the field-terrace immediately below the shrubbery in front of the house. This terrace, access to which was gained by an iron wicket, often spoken of by him, commands a wide and varied prospect of great beauty – the city, the sea, the Dublin and Wicklow mountains, and an intervening plain with many features of its own, woods and fields, villas and hamlets. Hither he was sure to bring stranger or friend, and many will remember how, enjoying the splendid scene, he was animated by it to pour forth, as he sat or strolled, the riches of his thought and feeling. At the time of which I now write, his three sisters, Grace, Eliza, and Sydney, were domiciled at the Observatory. The first-named, as the eldest, kept house for him, but all, including Grace as well as the poetess Eliza and the student Sydney, sympathised in his pursuits, and were cheerful and congenial companions; and it was delightful to observe the warm affectionateness which pervaded all his intercourse with them. No fear that the topics would be uninteresting to

<sup>59</sup> See for a ground plan of the Observatory and the garden p. 85.

them banished science or poetry, religion or politics from the conversation of meal-times; they and Cousin Arthur, a frequent visitor, freely took their parts in it, for though he was the life and soul of all that passed, Hamilton was no monopolist of talk, even when he shone most brilliantly, either at home or in outer society. The poets most often in his thoughts and conversation at this time were Wordsworth, Coleridge, Shelley, and Keats, and, among the elders, Milton. The books lay about, as often open as shut, ready to be snatched up and read from, commented on, and discussed; these poets entered into his daily life and into that of his sisters, and it was as refreshing and fertilising fountains of feeling and thought that their works were thus habitually resorted to. To Shakespeare he would occasionally refer, but he did not then, if I remember rightly, at all study or occupy his mind with the characters or expressions of the great dramatist. In truth it was in its subjective aspect that poetry had then for him its principal interest. His letters and his verses have shown that he was far from being exclusively confined to the consideration of subjective ideas; he took no unwilling note of outward objects and matters of fact, whether in human life or surrounding nature; and he was always alive to passing incident, and prompt to take necessary action; but it is to be admitted that the perpetual consciousness of the working of his great brain, of the large compass embraced by his thoughts, of the depth and permanence of his feelings, did in him become an over-weight, and made the presence of self unduly felt by him, and self-contemplation too habitual. This self-consciousness was indeed most remarkably free from selfishness; for no one was ever more ready to yield what might properly be yielded to another, nor to take considerate thought of the condition and circumstances of all in contact with him; but it was too operative to be concealed, and indeed he took no pains to conceal it, for he was above all things simple and unaffected; and this interest in his own mind and feelings led him into what, perhaps, was almost the only instance of disproportionate action in his intercourse with others; it did not manifest itself in the social circle, but with a friend, or one whom he hastily or charitably supposed to be such, he would too freely give credit for willingness to enter into abstract reasoning on the scientific subjects which engaged him, or for the personal sympathy which would take pleasure in the verses which gave utterance to his feelings; and, accordingly, when the incompetent, the uncongenial, and the unfriendly were thus treated by him, he incurred in their estimation the character of boredom, while even the true and comprehending friend would feel at times that his communicativeness was not always sufficiently restrained by regard to time and circumstances. His courteousness and his readiness to show deference, proceeding from his kindness of nature and his religious humility, never in the least degree interfered with his truthfulness. He had abundant moral courage, and, though not pugnacious, was not unwilling to engage in a strenuous battle of argument with any adversary, or to express, when occasion called for it, dissent or disapproval; and in such encounters or manifestations of conviction or feeling he united vigour and warmth with a manly good temper. He possessed also physical courage and activity. His practice of walking on the parapet of the Observatory roof is on record; and I remember the zeal with which he cultivated gymnastics when an undergraduate, and the strength and agility which he then displayed, and which he continued to exercise. An early friend of his informs me that once, in the country, he was mounted by his host on a horse which ran away with him; he kept his seat, and, having heard that the best way of subduing such a propensity in a

steed was to tire him out, he rode him on upon the hard road to such effect as to bring him home in a foundered condition. It was the possession of all these qualities which made him, at the time I speak of, so delightful a combination of the boy and the man, and the combination continued to exist into advanced years of his life.”<sup>60</sup>

### Commenting on Graves

However admiring and impressed Graves’ foregoing description of Hamilton may often sound, by making harshly critical remarks wrapped in blankets of warmth Graves enables his readers to see Hamilton as a rather unworldly person, immersed in his own feelings and being too conscious of himself. While trying to soften his criticisms by emphasizing the sheer beauty of Hamilton’s character and ending with something positive again, Graves diminishes Hamilton, perhaps unwillingly, to a simple, non-empathetic genius. Although his criticisms are larded with positiveness, yet in that way they arouse a vaguely dark atmosphere which would perhaps not have been so damaging if the biography would have been written mainly for their contemporaries; but this biography, about such a famous man, was written for the future and for the world to read.

By making his remarks about Hamilton’s ‘too habitual self-contemplation,’ Graves reduces all Hamilton’s sufferings, his pain over his losses, whether parents or loves, his efforts to learn to cope with them, indeed his entire romanticism, to a simple trait; this beautiful man ‘unduly felt the presence of self.’ And from his remarks about the “perpetual consciousness of the working of his great brain” it can again be inferred that Graves does not seem to have recognized what Hamilton did recognize due to early warnings; the dangers of all the praise, sometimes even overwhelming, this great brain evoked from a very young age. While describing 1839 Graves writes: “I have often found it hard to comprehend Hamilton’s intellectual humility in intercourse with others, as combined with his consciousness of his own powers, and yet I believe it to have been real.”<sup>61</sup> Not recognizing these dangers and therefore not realizing how hard it was for Hamilton to deal with them, understanding the way in which he strove to remain humble must have been impossible indeed.

Without explicitly saying it, Graves depicts Hamilton as a brilliant man suffering from a lack of social skills: “[His] self-consciousness [...] was too operative to be concealed [...]; and this interest in his own mind and feelings led him into [...] disproportionate action in his intercourse with others; [...] it did not manifest itself in the social circle, but with a friend [...] he would too freely give credit for willingness to enter into abstract reasoning on the scientific subjects which engaged him, or for the personal sympathy which would take pleasure in the verses which gave utterance to his feelings; and, accordingly, when the incompetent, the uncongenial, and the unfriendly were thus treated by him, he incurred in their estimation the character of boredom.”

With the second part of this sentence Graves also seems to suggest that Hamilton usually misread people, yet his remark that “it did not manifest itself in the social circle” indicates that it only happened in face-to-face conversations, from which it can be inferred that Hamilton was able to adapt his behaviour to the situation at

<sup>60</sup> [Graves, 1882, pp. 319-322]

<sup>61</sup> See footnote 42 on p. 71, [Graves, 1885, p. 306], p. 193.

hand; he therefore must have been conscious of other people's feelings and of his own behaviour.<sup>62</sup> That is indeed corroborated by the image of Hamilton which emerges from his correspondences: although he generally used a rather formal writing style, throughout the biography he seems to have reacted quite normally.

Instead of having had difficulties with reading people's feelings, Hamilton's problem may simply have been that, talking passionately about what interested him at the moment, he had trouble making clear distinctions between people as regards their intellect, thus misjudging whether his interlocutor was able to follow him; misjudging who was only slightly less intelligent, or simply less intelligent, or unable to follow him at all, which is quite different from being non-empathetic.

If Hamilton indeed made such misjudgements, it can easily be argued that his choice of how to deal with people was simply the best one, just granting sincere credit to anyone whenever that seemed appropriate, even if it made him look too eager sometimes, and too humble at other times. Luckily, Hamilton does not strike as someone who would have been very anxious about being boring to someone; having had an enormous inner confidence while striving to remain humble, he will rather have been worried to wrong someone.

Graves does indicate though that there was much gossip about Hamilton, and he may have wanted to explain how such a good man could behave like that, while at the same time trying to suppress even more negative forms of gossip by giving learned criticisms, or the simple truth as he will have seen it. And actually, there he was successful. After the publishing of the biography Hamilton was seen as Graves hoped he would be: as a wonderful man with weaknesses having made an unfortunate choice when searching for a life companion.

### Ground plan of the Observatory around 1905

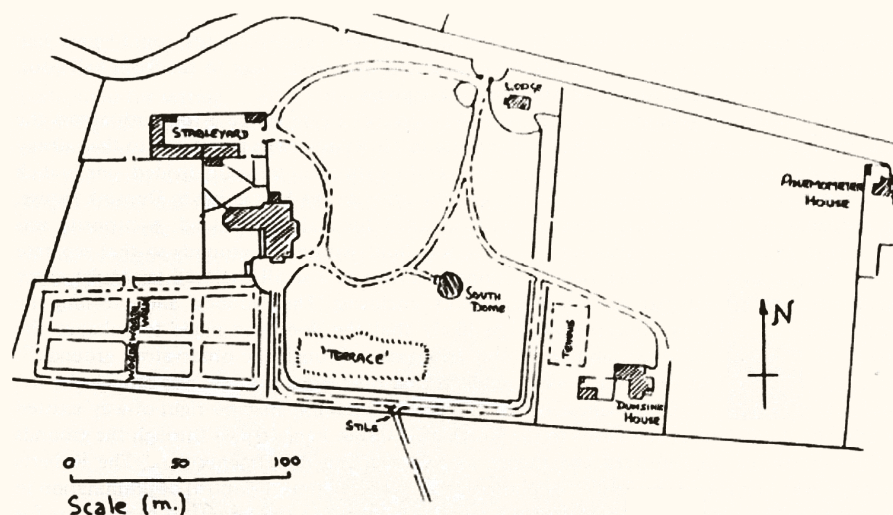
This ground plan comes from Wayman's book about the history of Dunsink Observatory. The Observatory is the hatched building in the middle towards the left, between the 'Stable Yard', which is partly hatched, and the garden grid in the lower left corner; the hall-door is facing south. The garden with its seven "walks", which does not exist anymore, was presumably planted during Brinkley's time; the Wordsworth's Walk is indicated in the garden grid as the vertical walk second from the left, where, according to "oral tradition" it was during Hamilton's days.

The 'Stile' south of the 'Terrace' gives access to the sloping field which Hamilton used to cross while walking down to the Royal Canal or the river Tolka, although in Hamilton's days the stile will not have been there yet. According to Graves the "iron gate" Hamilton wrote about gave entrance to the terrace, and as seen from what William Edwin and Graves wrote about it it will most likely have been where in this ground plan the stile is drawn; William Edwin wrote in his *Peeps* that when he was thirteen, thus in 1847, the "stone wall of the Observatory demesne [...] was pierced with an iron wicket gate," and Graves wrote, when describing the "Feast of the Poets" which Hamilton had organized at the Observatory in April 1858, about the "sloping field below the little iron gate."<sup>63</sup>

<sup>62</sup> See for a possible reason to talk like he did to fellow scientists p. 342.

<sup>63</sup> See footnote 23 on p. 164, [Hamilton Jr, 1895, p. 3], p. 107. The plan comes from [Wayman, 1987, p. 186].





At the north side is the 'Lodge' which was, in Hamilton's days, rented by Philip Milmore;<sup>64</sup> between this gate-lodge and the terrace is the 'South Dome' which was built in 1865. To its east is a 'Tennis' lawn, which also was not there in Hamilton's days; next to it is 'Dunsink House', built in 1873 for the Assistant Director.

In the right upper corner is the 'Anemometer House' which was, according to Wayman, actually the "Assistant's house built in 1844 or thereabouts." According to a note in Hankins' biography, after Hamilton became Astronomer Royal a new house was built for Thompson; it can therefore be assumed that the house was built around 1827 and thus was Thompson's house. The anemometer, a device to measure wind speeds, was invented by Robinson in 1846, and since an anemometer was placed on its roof the house was called after it.<sup>65</sup>

### 3.6 A sad encounter

Hamilton started his new life at the Observatory in October 1827 and during the first years he worked very hard on astronomy; in December 1828 Robinson wrote to Hamilton: "I am glad to hear so good an account of your Lectures, and regret that I could not hear one of them for the pleasure of seeing my expectations so perfectly fulfilled. Good-bye, and go to bed and rise early, for I hear you are not as well as every-one who knows you will wish you to be. The intemperance of study is as fatal as any other, or even more so, for it cuts off only the noblest of our race."

<sup>64</sup> Milmore's birth and death years do not seem to be known.

<sup>65</sup> [Wayman, 1987, p. 59], [Wayman, 1987, p. 185], [Hankins, 1980, p. 405 note 8]. According to the website *Ask About Ireland*, in 1849 James Hans Hamilton was Hamilton's landlord, while Hamilton was landlord to Thompson who rented his house and "offices", and to Philip Milmore, who rented the Gate-lodge. [www.askaboutireland.ie/griffith-valuation/index.xml?action=doNameSearch&PlaceID=1551001&county=Dublin&barony=Castleknock&parish=Castleknock&townland=Dunsink](http://www.askaboutireland.ie/griffith-valuation/index.xml?action=doNameSearch&PlaceID=1551001&county=Dublin&barony=Castleknock&parish=Castleknock&townland=Dunsink) [Accessed 27 Nov 2015]. For Wayman's thoughts about the people living on the premises see p. 181. Whether the anemometer was on the house in Hamilton's days is uncertain; according to Wayman there is only one 1872 drawing, of the south dome, in which the anemometer can be seen in the background. [Wayman, 1987, p. 101].

In March 1830 Robinson “came up to Dublin, but missed seeing Hamilton at the Observatory: from the assistant, however, he learned that Hamilton was again unduly risking his health by night-work, and with the friendliness which marked all his conduct he wrote to warn him. “I have many things to talk to you about, but for the present must only entreat you to take care of yourself. I hear from Thom[p]son that you sometimes sit up very late in the transit-room; now I can tell you from my own experience that no constitution can stand much of that work. You see that at Greenwich they never observe after twelve, except in cases of absolute necessity. But I will allow you to rise as early as you please.””

Hamilton also worked on celestial mechanics; early in 1830 he had corresponded with Robinson about the return of comet Halley in 1835 which was predicted by Damoiseau (1768-1846) to be in its perihelion on the 16<sup>th</sup> of November 1835, and Hamilton had calculated that “by this approximation the comet, at its perihelion passage in 1682, was more than twice as near to the earth, in linear distance, as in 1759; and I think we may conclude from the fore-going calculations that it will be brighter in 1835 than in 1759, although not so bright as in 1682.”<sup>66</sup>

Still in March Hamilton took Adare, who then lived with him at the Observatory to be taught in astronomy, with him to visit Robinson at Armagh. There they met Lady Campbell (1796-1869) who lived in the neighbourhood and would become hereafter a lifelong friend of Hamilton, according to Graves “to both a source of intellectual pleasure and moral benefit.” On the 24<sup>th</sup> of March 1830 they visited Lord Gosford (1776-1849) at his “not yet quite finished” castle and stayed for the night, the following day they had a “stiff” party with the Primate, in those days Lord De la Poer Beresford (1822-1862), and Robinson showed, as Hamilton wrote to Cousin Arthur on the 26<sup>th</sup>, “a great deal to Lord Adare, who drinks it eagerly in.”<sup>67</sup> Then Graves writes: “In Lady Campbell, Hamilton found at this particular juncture a friend to whom he was indebted for the exercise upon him of influence which contributed to save him from giving way to morbid despondency. It happened that the lady to whom he had been attached resided not far from Armagh, and he went to call upon her; he saw her then, and he never met her again, except twice, or at the most three times, transiently in society, until more than twenty years afterwards, when she lay upon her death-bed.”<sup>68</sup>

Graves does not give these events in chronological order making it hard to see what exactly happened; Hamilton visited Catherine the day after the “stiff” party, and later that day, thus on the 26<sup>th</sup>, he wrote the aforementioned letter to Cousin Arthur of which Graves gives only very small parts. It can be seen in Hankins’ biography that in that letter Hamilton did mention his visit to Catherine; he wrote that it had been a difficult journey because it “had to be made on horseback [...] and was

<sup>66</sup> [Graves, 1882, p. 307], [Graves, 1882, p. 358], [Graves, 1882, p. 372]

<sup>67</sup> [Graves, 1882, p. 359], [Graves, 1882, p. 336], [Graves, 1882, p. 374]. This is the first time that Graves mentions Lady Campbell, but Hamilton seems to have met her already during his first visit to Armagh in 1827 since in August 1829 Robinson wrote to Hamilton: “[Adare’s father] Lord Dunraven is an acquaintance of Lady Campbell (whom you, I dare say, remember here).” [Graves, 1882, p. 336]. The Archbishop of Armagh is called the ‘Primate of All Ireland’.

<sup>68</sup> [Graves, 1882, p. 360]. Catherine and her family had moved to the neighbourhood; Hamilton visited her and her brother Edward who had been one of Hamilton’s college-friends. [Hankins, 1980, p. 106]. The fact that Hamilton decided to visit her is in itself remarkable, since it suggests that he thought he could handle seeing her; he doubtlessly would not have decided to visit her if he would have been afraid not to be able to maintain his “philosophic calm”.



“rather long for an inexperienced horseman.”” According to Graves, “the visit produced in him a revival of pains that had been in some degree dormant, and [still on the same day] he gave expression to his feelings in the following lines”:<sup>69</sup>

We two have met, and in her innocent eyes  
 A meek and tender sorrow I have seen;  
 Ah! then, the change which my glad light put out,  
 And threw a gloom over my once bright way,  
 Has not to her brought perfect happiness,  
 Has not been able wholly to repay  
 Her for the severing of those earlier ties,  
 The parting from that home she loved so well.

Though more than one fair child, about her knees,  
 Sports, or puts up his prayers, or fondly gazing  
 Soothes her to peace and joy; and though a spell,  
 And witchery is round her, that constrains  
 Whoever sees her to admire and love;  
 And though wealth is not wanting, nor the things  
 The many care for, yet she seems to me  
 Far, oh how far! less radiant with delight,  
 Less safe from sadness than when first we met.

And in another a deep change hath been:<sup>70</sup>  
 I am not what I was: I care not now  
 For what would once have like a trumpet roused me;  
 The spirit-stirring banner of Renown  
 I gaze on with a cold and heavy eye;  
 And Love with feeble and inconstant torch  
 Attempts again to fire me, but in vain;  
 And high research itself and Science' light  
 I follow more in patience than in joy;  
 Sadly contented, if I may endure  
 Life, and in gentle calm await the grave.

Clearly, noticing that Catherine was not happy was extremely distressing for Hamilton,<sup>71</sup> even making him lose his feelings for science. Catherine visited him back at Armagh Observatory and although they were together in the dome, he could not be open to her because she was married,<sup>72</sup> even with children.<sup>73</sup> According to Hankins,

<sup>69</sup> [Hankins, 1980, p. 106], [Hankins, 1980, p. 413 note 33], [Graves, 1882, p. 361]

<sup>70</sup> Hamilton more often expressed himself as if he actually believed that these kind of feelings, once arisen, would remain forever, as can be seen in the poem ‘The Enthusiast’ when he wrote that he was left “darkly changed”, or on p. 401. Yet he was always able to pick himself up again after some time, making it hard to know how he felt when he was just living his daily life and did not write about it.

<sup>71</sup> Hamilton’s reaction is one of the many instances where it can be seen that he was perfectly able to ‘read’ people’s emotions, although Graves seemed to indicate that he was not.

<sup>72</sup> Graves even calls it “forbidden”; Catherine was “one in whom [Hamilton] could not cease to be interested, though forbidden by circumstances to manifest that interest.” [Graves, 1882, p. 361]. This was the beginning of the Victorian era.

<sup>73</sup> Graves does not mention Catherine’s return visit to the Observatory although he must have

“when he tried to demonstrate the use of the telescope he broke the wires in the eyepiece.” And according to Graves, “his depression, it may be supposed, became visible, for the sympathy of Lady Campbell attracted his confidence, and from her he was unable to conceal its nature.”<sup>74</sup>

### Consolations and humbleness

But then Hamilton got an idea which lifted his spirits; in April, when he was at home again, he asked Lady Campbell to befriend Catherine: “I cannot resist the temptation of complying with your invitation to send you a letter besides. Indeed, though but an irregular and unfrequent letter-writer, I have too much enjoyed my conversations with you at Armagh not to accept with pleasure your permission of carrying on an occasional correspondence. My mind was indeed much soothed and comforted by your kind and gentle expostulations, and I feel without regret that you have divined some particulars of my history which I had carefully sought to conceal. I am even glad that you have been so penetrating, since you allow me to hope that the person in whom I am so deeply interested will become an object of your interest also, and be favoured with your acquaintance and friendship – a thought on which I dwell with a pleasure that I cannot express. You will, however, conceive it if you have ever had an unexpected opportunity of greatly serving a person that you loved or cared for, but who had seemed to be for ever removed out of the reach of your kind offices. My leading to your acquaintance with the lady to whom we allude will to her be such a service, and so will mitigate the desolateness that I felt in the thought of our utter separation. You will be to us a connecting link, a bond of sympathy, a being that we both shall love, and that shall have added to the happiness of both. She indeed will not know that I have had any part in procuring for her your friendship, but the thought that I have had so will cheer and soothe me not the less.”

Although Hamilton had been so immersed in his feelings that he had felt “deeply changed” this idea, doubtlessly in combination with Lady Campbell’s consolations, gave him some hope that he would, some day, regain his strength; he continued the letter: “It would be unmanly to turn aside through grief from the high path in which I have been called to move, or, because I have encountered hardship or disappointment, to lie down in despair and die. It would be impious to murmur, with obstinate reluctance, against the appointment or permission of God, and refuse even the

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known about it. Hamilton wrote about it in 1854 to Dorathea Disney Evans (1823-1896), Catherine’s sister-in-law, [Hankins, 1980, p. 413 note 34], and Graves did mention that after Hamilton’s visit they met “twice, or at the most three times, transiently in society,” see p. 86. If Graves counted Catherine’s return visit as the first visit, and her visit in 1845, see p. 269, as the second one, then, taking Graves literally, there may have been a third visit, or he suspected a third one, yet it is unknown if or when that happened. Combining three webpages, [www.igp-web.com/IGPArchives/ire/dublin/photos/tombstones/mt-jerome-68/target122.html](http://www.igp-web.com/IGPArchives/ire/dublin/photos/tombstones/mt-jerome-68/target122.html), [www.barlowgenealogy.com/ireland/families/alexofireland.htm](http://www.barlowgenealogy.com/ireland/families/alexofireland.htm) and [www.barlowgenealogy.com/ireland/FamilyHistoryCentre-Barlow.htm](http://www.barlowgenealogy.com/ireland/FamilyHistoryCentre-Barlow.htm) [Accessed 30 Jan 2015], it can be seen that William and Catherine had a son in 1826, James William, who would later be coached for some years by Hamilton, see p. 289. One more son was born in Dublin, in 1828, and then they moved to Armagh, where they had four more sons, in 1831, 1833, 1835 and 1837. They also seem to have had a seventh son, but he died at a young age and no date of birth is given. Also the sons born in 1831 and 1837 died young. It is, therefore, possible that when Catherine contacted Hamilton in 1845, see p. 269, and in 1848, see also p. 269, she was also still mourning her dead children; as can be seen from Hamilton’s poem despite her unhappy marriage she clearly loved them.

<sup>74</sup> [Hankins, 1980, p. 106], [Graves, 1882, pp. 360-361]

endeavour to give the heart to Him. Yet all these thoughts have not produced in me their perfect fruit: the mind is convinced and willing, but the heart still lingers and is weak. But I will hope that whenever we meet again the victory may be more complete, and I may be enabled to hold in sincerity a wiser and firmer language."

Graves does not mention how Lady Campbell reacted to Hamilton's plan to befriend Catherine, but the plan could not be carried through since soon thereafter she moved away from Armagh.<sup>75</sup> Towards the end of May 1830 she wrote: "I often think of our long conversations, and do hope, dear Mr. Hamilton, that you will soon return to us, for it is long since I had had such true pleasure. I feel grateful to you for allowing me to understand your feelings, and I do trust you will find me worthy of your kind confidence. [...] I feel convinced you have exerted, and will exert, yourself to overcome the languor which has crept over your mind. You have still a prospect before you well worthy your exertions; and you will not vex your friends, vex those who know and love you, by turning from those blessings, those best of blessings, the power of being useful and doing good, because it has pleased God to try you by one severe disappointment. You know you have privileged me to preach."<sup>76</sup>

While describing 1848 Graves gives an "extract", made by Hamilton himself, of a letter written on an unknown date in 1830 to Lady Campbell, in order to illustrate Hamilton's almost lifelong inclination to use his feelings of desperation and sadness to try to remain humble, and this letter clearly belongs to the foregoing correspondence. "Though I have lately written another poem, of which I send you a copy, I am aware that my poetical compositions have no pretensions to merit considered as works of art. But I cannot persuade myself entirely to forego what has soothed myself in moments of deep emotion, and has enabled me to hold, with living friends, a communion more perfect than ordinary conversation could afford."<sup>77</sup> And if my scientific works should cause me to be remembered, and enable me after my death to influence the minds of men, my poems may perhaps survive to show that I had not been quite a harsh and rugged being, nor quite insensible to feelings of gentleness and beauty. I thank you most sincerely, dear Lady Campbell, for the sympathy which I have received from you, and trust that your good advice will not be quite thrown away. Indeed I know that it would be both weak and wrong to allow myself to be overcome

<sup>75</sup> Describing 1832 Graves writes: "Sir Guy [(1786-1849)] and Lady Campbell, who had for some time been living at Dunbrody in the southern part of the county of Wexford," to which she thus must have moved in 1830 or 1831, "had recently taken up their abode at Riversdale, near Palmerstown, on the banks of the Liffey, and so within riding reach of Hamilton. Lady Campbell's announcement of the change must have been deeply gratifying to him." [Graves, 1882, p. 597]. She was also happy to live nearby now; in October 1832 she wrote: "I am a letter in your debt, but a visit will do much better; pray come and see me in my new mansion. I long to have a talk with you. I know nothing of Adare or anyone. We are all well and glad to be in a place that is very nearly country. After the wilderness I have just left, there is rather too much civilization about us to allow of my calling it quite country, but still I am out of the smoke and stir of that dim spot which men call Dublin. I am so busy settling that I shall not be able to go to you for some time, so just throw by all your work and come to see us, for I need not tell you that every year has added to the affectionate friendship we feel for you. I must indeed think highly of your heart when I tell you I never think of your talents but as second thoughts, always bringing them in afterwards." [Graves, 1882, pp. 597-598].

<sup>76</sup> [Graves, 1882, pp. 362-363]

<sup>77</sup> Hamilton was likely alluding to his "farewell to Poetry" in October 1829, the previous year. The poem he sent to Lady Campbell will have been the poem starting with "We two have met", which he had written on the day he had visited Catherine, see p. 87. It seems to have been the first poem after his "farewell".

by that mental languor to which I have sometimes yielded: nor can I think myself right or innocent in having so often done so already. But it was because I have struggled to bear disappointment as a Stoic rather than as a Christian; because, though intellectually convinced of the truth of Christianity, and not devoid of feelings of religion, I have sought rather to arm my heart with the triple steel of stubborn patience, than to win for it that peace which cometh from above. It is just, therefore, and fit that, when the strong heart fails, as fail it sometimes must, I should be overwhelmed with a depth of despondence unknown to those who have walked more humbly with their God."

Graves concludes: "Thus was closed this chapter of the romance of his life. He listened to the exhortations of his friend, seconding, as they did, the dictates of his own conscience, and he turned with invigorated resolution to the carrying on of his scientific researches." And although Graves sometimes sounds as if he would have liked Hamilton's melancholy to be over with sooner, he seems to have been right, that is, almost, as can be seen by the following letter, written in June, and the visit thereafter to Wordsworth.<sup>78</sup>

### **An excursion and invigorating visits**

Hamilton was working daily again and it sounds relaxed; he was not just working. In June 1830 he wrote to Lady Campbell again, late in the evening after Adare had went to bed and had tried to tell him to go to bed also, about an "excursion" with Adare "to the Dargle, one of the parts of the County Wicklow nearest to Dublin, and a beautiful spot," and this time his letter even sounds joyous: "In one of these lovely spots where the calmness and the turbulence of the stream were seen in closest contrast, where the sun could only shine through a rich veil of leaves, and all was loveliness and beauty, we met, after hours of roaming, in the course of which we had lost sight of one another, and we drew from its hiding-place a basket of bread and meat, which we had prepared to refresh us after our wanderings. Nor did we fail to attack it with "keen despatch of real hunger" as at the feast of Eve, nor to drink of the brook with such eager enjoyment as Milton has elsewhere described. While we were thus engaged, our spirits rose to such a height, we joked and laughed so much, that we might well have been suspected of deriving inspiration from some more potent beverage. Some word of mine was mistaken by Lord Adare for your name, and his fruitless attempt to prove a resemblance in letters if not in syllables did not hinder me from rallying him for having had you at the time in his remembrance. I could have made but a weak defence myself against a charge of the same kind, since I had the moment before been fancying that I saw your Edward's eyes<sup>79</sup> looking into mine, with the same expression as when he told me that I was a real magician." But Hamilton was not as far away from his melancholy as Graves had hoped for; he ended the description of the excursion writing: "And here while I have been trying to describe it, I have nearly filled my sheet without a single sentence of melancholy."

Throughout his life Hamilton could be brightened up by travelling and seeing friends, and together with Eliza, in July 1830 he visited Wordsworth. They met the poet Mrs. Hemans (1793-1835) "whom they were afterwards to know as a familiar

<sup>78</sup> [Graves, 1885, pp. 612-613], [Graves, 1882, p. 364]

<sup>79</sup> Edward FitzGerald Campbell (1822-1882), her eldest son.

friend,” and Wordsworth took Hamilton “to Lowther Castle, the beautiful surroundings of which he saw under the guidance of Lady Lonsdale [(1761-1838)] and [her daughter] Lady Frederick Bentinck [(.. -1862)], with the latter of whom he subsequently corresponded.” According to Graves, before embarking for Dublin on the 20<sup>th</sup> of August Hamilton sent “farewell verses” to Wordsworth, which “cannot take rank as poetry, but they present a pleasing picture of the companionship that had been enjoyed, and the concluding lines express well the calming influence exerted by the poet upon the still agitated breast of the student.” Hankins adds: “When the steamer reached Dublin in the early morning they walked to the observatory together, a distance of some five miles. Hamilton’s letters to Wordsworth after the visit reveal a lightheartedness and enthusiasm that had been missing at Armagh.”<sup>80</sup>

In August and September 1830 Hamilton published his poems ‘A Farewell’ and ‘The Enthusiast’.<sup>81</sup> It can of course be wondered if he did that on purpose; not being able to give Catherine Lady Campbell’s friendship, perhaps he hoped that reading how he had loved her, and how he wished her happiness, would cheer Catherine up.

And also that September Hamilton visited, for the first time, Adare’s parents. “This long anticipated visit was to last only for a few days, but that time was sufficient to establish a firm friendship between Hamilton and both the Earl [(1782-1850)] and Countess [(ca 1789-1870)] of Dunraven.”<sup>82</sup> Due to this new friendship Hamilton would renew his acquaintance with Ellen de Vere whom he had met earlier in Dublin,<sup>83</sup> the beginning of a new chapter in his life.

## Fame

In the meantime Hamilton’s fame was growing. According to Graves, during the first half of 1830, “by Colonel, then Captain, Everest (1790-1866), the distinguished Engineer, who had been superintending the great work of arc-measurement in India, and who was now returning there as Director-General, he was pressingly urged to review, in conjunction with Professor Airy, his Report to the East India Company of the portion of the work already accomplished. Colonel Everest had been introduced to Hamilton in the previous year by Captain Beaufort,<sup>84</sup> and a friendship had arisen between them: but the request was one which Hamilton wisely declined to comply with. He had similarly to decline a request on the part of his friend Mr. Johnston for a review of Bowditch’s edition of Laplace, and overtures from Dr. Lardner [(1793-1859)] for contributions to the *Cabinet Cyclopædia*. By Baron Foster [(ca 1781-1842)] (better known as John Leslie Foster, Speaker of the last Irish House of Commons), who was at that time erecting an Observatory at Rathescar in the county of Meath, he is consulted about the choice and fixing of his large telescope. In fact, it may be said that from this time forward he is referred to on all hands as if he could answer every scientific question, and undertake any scientific work, however laborious.”<sup>85</sup>

<sup>80</sup> [Graves, 1882, pp. 364-365], [Graves, 1882, pp. 368-369], [Hankins, 1980, p. 107]

<sup>81</sup> See footnote 28 on p. 62, footnote 12 on p. 56.

<sup>82</sup> [Graves, 1882, p. 370]. During this visit Adare’s parents had his bust made, see p. 178.

<sup>83</sup> According to Hankins, Hamilton had met Ellen de Vere, briefly, in 1829 at the house of a neighbour near Dublin. [Hankins, 1980, p. 109].

<sup>84</sup> Maria Edgeworth’s half-sister Honora (1792-1858) was married to Captain Beaufort.

<sup>85</sup> [Graves, 1882, p. 367]. *The Cabinet Cyclopædia* is a book series consisting of 133 volumes, edited by Dionysius Lardner.



## Chapter 4

# A brother

In the beginning of 1831 Hamilton seems to have been in good spirits; on the 2<sup>nd</sup> of February he wrote a cheerful letter to Wordsworth: “I wrote a few lines to you the day before yesterday, which were to go by a frank from Lord Douro [(1807-1884)]; I hope they have reached you, or will do so safely. Immediately after I had sent them, it began to snow, and we are now quite blocked up. Yesterday morning it was with difficulty that Lord Adare and I made our way into the garden to rescue an old pet rabbit and some other creatures; we had great fun trying to run after each other, and falling every moment in the deep snow, while our hair took the appearance of an old Welsh wig. I suppose it would now be almost impossible for us to make our way through the same places, for the snow has continued to fall and to drift. I was to have dined with Lord Anglesey [(1768-1854)] yesterday, but the carriage that was coming from town to take me in could not reach us; indeed we are told that the snow has quite buried the long lane leading to this house, hedges and all. Happily, on holding a council of war, we find that we have potatoes and pigs, not to mention sheep and cows, so that we can hardly be starved. We have also coals; our only danger is that we may want the luxury of bread, for the baker cannot approach us: but having so many other things, we can dispense with that one, and consider the whole affair as an entertaining adventure. At the worst, we hope to derive great advantage from a suggestion contained in a late work of Herschel’s. He says that a mode has lately been discovered of making sawdust bread, not quite so palatable (he admits) as wheaten, but still very nutritious. Now we have a good many pieces of old wood upstairs, which had belonged to a temporary platform in the Dome; and I daresay we have a saw, and who knows but by a skilful series of experiments we may come to re-discover the secret of the sawdust, and supply ourselves with loaves without end? Besides, we have all heard that snow makes excellent pancakes, and we have only to imagine that every day is Shrove Tuesday.<sup>1</sup> Are you put to any of these shifts and devices by any similar blockade of snow at present in England?

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<sup>1</sup> In the Anglican and Catholic Church Shrove Tuesday is the day before Ash Wednesday, the beginning of the forty day period before Easter. It is also called Pancake Day, hence Hamilton’s jocular remark. Perhaps a bit too enthusiastic about the progress and possibilities of science, or having too much trust in colleagues, Herschel did write about baking a sort of bread from sawdust in *The Cabinet Cyclopædia*: Herschel, J.F.W. (1830), *A Preliminary Discourse on the Study of Natural*



“Besides my dinner with Lord Anglesey yesterday, I shall lose a breakfast with Mr. O’Sullivan<sup>2</sup> to-morrow, which I expected to enjoy, for he is an agreeable man himself, and makes up pleasant parties.

“February 19. – Since I began this letter, the snow has had time to clear away, and I have had my breakfast with Mr. O’Sullivan. You will think that I have grown quite a courtier, when I tell you that I have attended a Levée and a Drawing-room: but to protect my character for sobriety and gravity, I intend to abstain from the Balls. I have amused my sisters by my attempts to describe the Drawing-room and the ladies’ dresses, skylights of pearl upon the brow, and sunset trains upon the ground. The chief pleasure that I had anticipated was in meeting Lady Campbell, but in this I was disappointed, for she retired early with Sir Guy, while my cousin [Arthur] and I went rather late. But I shall meet her to-day at dinner, notwithstanding my anchorite habits or professions. You perhaps remember our walking to-gether, when you were here, through Mr. Ellis’s demesne of Abbotstown, which is about a mile from the Observatory. My sisters and I do not visit Abbotstown so often as its beauty deserves, but we had a pleasant walk through it on Thursday with my pupil’s sister and with another friend of his, who had slept here the night before, having come out to star-gaze. The little Tolka river was swoln by the melting of the snows, and the walks by its side were beautiful. I had taken a delightful walk alone, through the same places, on the evening before, and had seen the sun set among the distant trees, and twilight pass into the light of the crescent moon. You will guess, perhaps, from my mentioning these things as events, that I am only too often an indolent stay-at-home.”<sup>3</sup>

That summer Hamilton visited Adare again, Cousin Arthur arrived some days later. It was a very playful visit; on the 9<sup>th</sup> of September 1831 Hamilton wrote to his sister Grace about his “frolics and vagaries”: “The first vagary that occurs to me is my keeping of an optico-poetico-mathematico-musical diary, as a sample of which I extract the following sentence. “The rays being refracted by a sphere, ‘No non temer’ was played beautifully on harp and piano in the drawing-room,”<sup>4</sup> while I sat listening in the library of glass, having its centre at the origin and its radius equal to unity.” Another vagary was my dancing in the old oak hall under the lamplight shadows of enormous antlers, while Lady Dunraven sat playing in a recess. The dance had many

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*Philosophy*. London: Longman, Rees, Orme, Brown, & Green, and John Taylor. The following quote can be found on pp. 64-65: “The transformations of chemistry, by which we are enabled to convert the most apparently useless materials into important objects in the arts, are opening up to us every day sources of wealth and convenience of which former ages had no idea, and which have been pure gifts of science to man. Every department of art has felt their influence, and new instances are continually starting forth of the unlimited resources which this wonderful science develops [sic] in the most sterile parts of nature. [...] What strange and unexpected results has it not brought to light in its application to some of the most common objects! Who, for instance, would have conceived [...] that sawdust itself is susceptible of conversion into a substance bearing no remote analogy to bread; and though certainly less palatable than that of flour, yet no way disagreeable, and both wholesome and digestible, as well as highly nutritive?” In a footnote Herschel adds: “See Dr. Prout’s account of the experiments of professor Autenrieth of Tübingen. *Phil. Trans.* 1827, p. 381. This discovery, which renders famine next to impossible, deserves a higher degree of celebrity than it has obtained.” [https://archive.org/details/preliminarydisco00hers\\_0](https://archive.org/details/preliminarydisco00hers_0).

<sup>2</sup> Hamilton corresponded with two brothers O’Sullivan, Dr. Samuel O’Sullivan (1790-1851) and Rev. Mortimer O’Sullivan (ca 1791-1859). It is not clear from the letter which of the brothers Hamilton was alluding to.

<sup>3</sup> [Graves, 1882, pp. 425-427]

<sup>4</sup> From *Otello*, by Gioachino Rossini.

fits. First I led off Mademoiselle, my kind and lively nurse, in a waltz [...]. Then came a quadrille in which, between memory and invention, I contrived to cause no great confusion.”<sup>5</sup>

Perhaps due to the mechanical view on one of the dances, and the description this time not enlightened by beautiful music, Graves leaves out a part of the letter which is given by Hankins: “This dance illustrates what in astronomy we call the centrifugal force, for it required exertion on the part of the gentlemen to prevent their partners, who were outermost, from flying off from the center and from them. Some did so fly ... by the rapidity of the motion. ... We closed the ball by a Coronation Dance, which began with a gentle and solemn music; with motion corresponding; but soon grew fast and furious, till the first couple had held a handkerchief for the ladies to dance under and for the gentlemen to leap over.”<sup>6</sup>

The letter continues: “Mrs. Hanmer<sup>7</sup> is a very elegant lady, and Cousin Arthur admires her particularly. Her son is a very gentlemanly young man, and with him and Mr. O’Brien<sup>8</sup> I had an amusing water vagary. I was rambling through the grounds on Monday, when I happened to see a little boat on the lovely little river, with those two gentlemen in it; I drew near and they invited me to join them, which I did, and we drifted down the stream, shooting in fine style the falls of the weirs without yet falling in ourselves, though we seemed at every moment on the point of being over-set: so small and light was the boat, and so unsteady were we three in the standing posture in which we were trying to manage it. Returning we had of course greater, and indeed great, difficulty in forcing the boat up the little falls, yet we surmounted three; but soon after we had passed the third, in the remaining unsteadiness produced by our recent efforts, Mr. O’Brien fell over with a heavy splash; into a shallow part, however, so that we had only a laugh instead of alarm: and so much did I envy his adventure that on coming to a deep pool I laid down my hat in the boat, my coat being off already, and with all my other clothes on deliberately leaped into the water, and swam to a little island, from which I had again to swim to overtake the boat. Imagine my extraordinary figure when I presented myself soon after to Lady Dunraven, who immediately ordered some excellent ginger cordial and other liqueurs for Mr. O’Brien and me. I changed my clothes without delay, and was not at all the worse – on the contrary, I have ascertained by trial the possibility of swimming in my clothes, which experience may be useful to me hereafter.”<sup>9</sup>

<sup>5</sup> [Graves, 1882, p. 452]. Graves does not mention why ‘Mademoiselle’ had been his nurse. Hamilton had only been ill twice; he had suffered from whooping-cough in 1822, [Graves, 1882, p. 99], and in December 1825 and January 1826 from an illness he called “long and painful”, [Graves, 1882, p. 195].

<sup>6</sup> [Hankins, 1980, p. 108], [Hankins, 1980, p. 413 note 41]

<sup>7</sup> She was very likely the wife of John Hanmer, Baron Hanmer of Hanmer and Flint (1809-1881), from Flintshire in Wales. The Hanmers were cousins of Adare. [Graves, 1882, p. 452].

<sup>8</sup> In the same letter Hamilton wrote: “Mr. W Smith O’Brien [(1803-1864)], son of Sir Edward O’Brien [(1773-1837)], who used to be Member for Clare, until he was defeated by [Maurice] O’Connell [(1803-1853)].” [Graves, 1882, pp. 452-453]. Maurice O’Connell was the eldest son of Daniel O’Connell (1775-1847) who founded the Repeal Association and was called ‘The Liberator’. O’Brien would play a leading role in the Young Ireland rising in 1848. <http://thepeerage.com/p37648.htm#i376478> [Accessed 10 Aug 2015].

<sup>9</sup> [Graves, 1882, pp. 452-453]. In those days there clearly was no widely felt aversion against drinking alcohol as there would be in Hamilton’s later years, see p. 431. On the contrary, it apparently was completely normal to even drink something during the day; also at the Miss Lawrences there was “some Scotch ale” at or after luncheon. [Graves, 1882, p. 535].

## Meeting Ellen de Vere

Hamilton was indeed very happy; four days earlier, on the 5<sup>th</sup> of September 1831, he had written to Eliza: “The day that I arrived, Miss [Elinor Jane Alicia Lucy] De Vere made a visit to Adare. [She] recognised me with much cordiality, and pressed me to visit Curragh, which I have some hope of doing. We almost instantly fell into a discussion upon Christabel,<sup>10</sup> which she does not like so well as I do; and though upon a former occasion I could not condescend to argue with her metaphysical brother, who represented Christabel as flying or rather jumping up the Castle stairs at a hop-step-and-leap, yet I now felt interested in understanding why and how far I differed from one whose love for poetry is so sincere, and whose taste is so cultivated as Miss De Vere’s.<sup>11</sup> My love of the supernatural, exceeding that of most, is one cause, doubtless, of my singular fondness for Christabel; another is, that, incited perhaps and aided by my general faith in things beyond the narrow limits of “this visible nature and this common world,” I supply, as I read, a commentary and a believing record of circumstances not told by the poet, which makes the tale a more consistent whole to me than I have reason to think it is to the majority of readers.”<sup>12</sup>

### 4.1 Being in another world

On the 14<sup>th</sup> of September Hamilton wrote to Grace: “I find that there is an opportunity of sending letters to Dublin to-day, and therefore, before Cousin Arthur and I set out for Limerick, we write to you. On the first page of this sheet, I have copied some verses to Miss De Vere, which I wrote last night after the excursion to Curragh, of which (I believe) Cousin Arthur has given you an account. Since I came here, I have been going on pretty vigorously with my missionary labours, in behalf of Coleridge and Wordsworth; but Miss De Vere has so much intensity of feeling and so cultivated a taste in poetry, that with her I feel as a learner rather than a teacher. It is being in another world to talk with her on poetical subjects; and I have been in this other world for much of the two last days.”

TO E. DE V.

O lovely one! who o’er thy sire’s domains  
 Glid’st, light and free, the Spirit of the place!  
 In thy sweet presence an enchantment reigns,  
 And all injurious bonds of Time and Space  
 Do I forget, when on thy mind-lit face  
 A momentary gaze I dare to rest;

<sup>10</sup> ‘Christabel’ is a narrative, unfinished poem by Coleridge.

<sup>11</sup> It seems logical to assume that the “metaphysical brother” was Aubrey de Vere, but at the same time it is very difficult to imagine the very serious Aubrey de Vere talking like that about a poem of Coleridge. Hamilton may have been talking about one of Ellen de Vere’s four other brothers, who perhaps could also be called “metaphysical”. Indeed, in his autobiography Aubrey de Vere writes that he met Hamilton in the earlier half of September 1831, see p. 45, while as deduced from letters written while travelling, Hamilton arrived at Adare on Friday the 2<sup>nd</sup> of September. He mentioned that on the day of his arrival he talked with Ellen de Vere, which means that he must have met this “metaphysical brother” earlier, and that it thus was not Aubrey de Vere.

<sup>12</sup> [Graves, 1882, p. 448]

Bright thoughts and feelings round me throng apace,  
Till, wholly by their inward power possest,  
I, though upon the earth, yet as in heaven am blest.

Not that I dare to wish thee for my own:  
Far more ethereal must his spirit be,  
Far more of heaven be in his bosom's tone,  
Who fitly with such wish may look on thee.  
Thou art but as a radiant type to me  
Of youthful Fancy's sweet and precious things;  
Thy innocent Beauty wakens holily  
Only such pure though fond imaginings  
As if I gazed from far on some fair Seraph's wings.

Not all unworthily with looks of thine  
My looks may mingle, so, and only so;  
The earthly lost to me in the divine,  
And Passion sullyng not the virgin snow  
Of Feeling; and 'mid rapture's deepest flow,  
While on to islands of the blest we seem  
Together in thy Spirit-bark to go,  
The current of that pure translucent stream  
Made turbid unto me by no presumptuous dream.

Hamilton was teased with his apparently visible adoration since he continued the letter to Grace: "But on my return from Curragh, my companions, perceiving [my being in another world], had the cruelty (Miss Gr., Lady M., and Cousin Arthur) to set themselves determinately to make me laugh, and so completely succeeded that our cheeks were all wet with merry tears, and our sides all thoroughly tired, before we arrived at Adare."<sup>13</sup>

### Science and the railways

Talking about science and poetry with Ellen de Vere was also a relief; after Airy had visited the Observatory earlier that month Hamilton had felt like almost losing his passion for science.<sup>14</sup> The 'problem' with Airy had been, as Hamilton had written to Adare in August 1831, that Airy considered the "Liverpool and Manchester Railway" as the "highest achievement of man [. . .]. When shall we see an incarnation of metaphysical in physical science! When shall the imagination descend, to fill with its glory the shrine prepared for it in the Universe, and the understanding minister there in lowly subjection to Reason! I am chilled by [the recent visit of] Airy, and could find it in my heart to renounce Science, in deep despair of sympathy. But fear not that I shall renounce it, whatever sad or impatient feelings I may have, when I look abroad and nowhere see the realization of my earnest yearnings, the coming of the king to fill the throne made ready in my heart."<sup>15</sup>

<sup>13</sup> [Graves, 1882, pp. 454-456]

<sup>14</sup> [Graves, 1882, p. 459]

<sup>15</sup> [Graves, 1882, p. 444]

There must have been much discussion about the railways; in 1845 De Vere wrote in his diary: "March 5. – ... Called at Rydal Mount, found the old poet in great force and indignation about the railways –,"<sup>16</sup> but he does not mention what Wordsworth was indignant about. Perhaps it had to do with its impact on an already changing society; in his autobiography, written in hindsight in the 1890s, while describing the 1830s De Vere writes: "In a London club I once found myself ruminating thus: Everything here is very luxurious, doubtless, but the top of an Irish mail coach, even in winter, had some thing to say for itself. It was rich in discomforts, but we had a faculty that ignored them; and we were easily amused. Here everything is perfection; but perfection is often "mighty flat", as [someone once] remarked. By degrees I fell into a reverie; and a day spent on the top of the coach between Limerick and Dublin, a bitter day in early March, presented itself to me again in all its quaint details. What is now a warm railway journey of about three hours, was then one that began at half-past seven in the morning, and ended at half-past ten at night."<sup>17</sup>

It is not that Hamilton did not like the railways a priori; in March 1832 he wrote to Eliza about his walk from Liverpool to the Miss Lawrences that, just having bought something to eat, "as I went along, refreshed by my milk, and munching my almonds, I passed some very large but smooth stones, and an odd thought came into my head. It occurred to me, that some gigantic creatures might find the same pleasure in munching the stones, which had much the shape of my almonds, as I in my human confectionery. Herschel, in his Discourse on the study of Natural Philosophy, remarks that a person who saw the effects of a boiler of a steam engine without being allowed to examine its contents might guess, and might maintain with great plausibility, that the boiler was the den of some powerful unknown animal, which was nourished by the carbon of the coals. I saw one of these monsters feeding, in the same morning-walk of which I was speaking just now. For, attracted by two tall pillars, of which one was sending forth steam, and which seemed enclosed curiously within a large walled area, I passed in at a little open gate and went down a little ladder, and looked over a kind of precipice, where, at the foot, I saw to my great astonishment a part of the celebrated railway, no part of which I had seen before."<sup>18</sup>

<sup>16</sup> [Ward, 1904, p. 68]

<sup>17</sup> [De Vere, 1897, p. 62]. For the "mighty flat" remark see [De Vere, 1897, p. 22].

<sup>18</sup> [Graves, 1882, pp. 534-535]. See for the walk in Liverpool also p. 69. William Edwin describes in his *Peeps* what was probably the first railway accident in Dublin: on the 7<sup>th</sup> of March 1865 Edward James Senior (1811-1865) was killed by a train. "'Ye maun na gang across,'" bawled the dark and sinister-looking High-lander, gateman at the Ashtown level crossing of the Midland Railway, near Dublin, a crossing which combined all conceivable elements of danger, being on a steep grade and a sharp curve, in the concavity of which tall willows were planted to blind the outlook of the engine driver. Senior, relative and namesake of the celebrated Professor [his brother Nassau William Senior (1790-1864)] and a great Government official, being Secretary to the poor-law Commissioners, was walking home to this country villa [Ashtown Lodge]. The large gate barred the roadway, but he passed through the turnstile. "D—n it ye maun na pass," shouted Sandy, roughly collaring him. The roar of the Express shook the willows. The earth trembled. Black clouds of sulphurous smoke heralded the unseen demon. Enraged at his presumption, Senior angrily shook him off, thinking he had time to clear the train, but the delay of two seconds was fatal. Had he been completely let alone or completely held prisoner, he would have been alive to-day. Fragments of hair and bloody bones strewed the track. My father terribly shocked, sent me with a letter of condolence to the widow next morning. Taking a short cut through my uncle's fields to the private drive of my cousin, John [Garnett] Rathborne [(1820-1895)], J.P., I saw him standing in the middle of the road, talking to a big burly City Police Inspector. I instantly guessed what was up. They were hunting jurors for the inquest. I bolted to jump a low thorn hedge and dodge the nuisance. "Too late, Willie," says he,

### Restoration of the tone of mind

After having joined Eliza and Sydney who had visited Maria Edgeworth, on the 23<sup>rd</sup> of September Hamilton wrote in a letter to Adare: "I reached the Observatory yesterday with Eliza and Sydney, and found, to my great satisfaction, your letter arrived before me. I did indeed envy your visit to Curragh, and did wish that it had been possible to act on your generous imagination of exchange; for such an opportunity of seeing and conversing with Miss De Vere would have been very gratifying to me! though perhaps if I had gone, I might have only metaphysicised with Aubrey, or talked commonplace with somebody else, so I must console myself as well I can. You will say perhaps that I am an odd, inconsistent mortal (though I persuade myself that I have method in my madness, and that I have a theory which reconciles the apparently opposite phenomena) when I tell you that whereas Professor Airy's visit had given me as much dislike to Science as it was possible in my nature to entertain, my interviews with Miss De Vere on the contrary have restored the tone of my mind, and I now am fond, again, of even astronomy, as fond at least as I have been for some years past, or as I can expect ever to be. The dislike to Science which followed the visit of Airy, temporary indeed, and felt at the moment to be only temporary, arose from no dislike to him, but only from the repulsion of my character to his, produced by his utter unimaginativeness. My present return of respect and regard for astronomy – since the mathematical spirit was too strong and habitual in me to be subdued for more than a moment, arises certainly from no repulsive tendency in the imaginative character of Miss De Vere, even if imagination should be considered too powerful in her for the perfect balance of her faculties; but from finding that in astronomy too, I can sympathise with a mind like hers, and thus throw around the austere nakedness of the science the robe of a human interest: more needed and more prized perhaps, because, though to me astronomy had come to be chiefly an exercise of intellect, and as such seemed superfluous, being so amply replaced by the reasonings of pure mathematics, yet to her, who is not a mathematician, the reasonings of astronomy may be a useful mental discipline, such as even the exercise of taste and discrimination in poetry might not be able to supply. And though I have been speaking of astronomy as if it were merely a science, yet I am well aware that it is more, that it combines, in its perfection, feeling with thought, and pervades not the mind merely, but the soul of man."

In October 1831 Hamilton wrote to Wordsworth about his feelings for Ellen de Vere: "on the best analysis that I can make of my own feelings, I think them quite platonic at present, and have no expectation of soon again endangering my philosophic calm." But Wordsworth, being 35 years his senior, doubted that: "to speak frankly, you appear to be at least three-fourths gone in love; therefore, think about the last quarter in the journey." In January 1832, thus in hindsight, Hamilton described to Wordsworth how the strength of his feelings had increased: "You were more penetrating than myself, with respect to my feelings towards Miss De Vere. I long thought that they were and would remain Platonic, but my admiration of her mind ripened gradually into a desire of marriage."<sup>19</sup>

"we've got to have you." I was served with a summons." [Hamilton Jr, 1895, p. 5]. See also <http://archive.spectator.co.uk/article/11th-march-1865/3/mr-edward-senior-the-brother-of-mr-nassau-senior-s> [Accessed 2015].

<sup>19</sup> [Graves, 1882, p. 459], [Graves, 1882, p. 470], [Graves, 1882, p. 474]

And in November 1831 he expressed in a poem his frustration about the course of science as seen by his fellow scientists, and how happy he was that Ellen de Vere had lifted his spirits again:

Early within herself a solemn throne  
 My spirit builded, and did silently  
 Prepare allegiance, and deep sympathy,  
 And worship, for some King of Thought thereon.  
 And when, yet young, in this star-girded Dome  
 My country bade me minister, I said,  
 My brother-band shall show me now their head;  
 To his prepared throne the King shall come.  
 O baffled Hope! O Age! Man's awful mind,<sup>20</sup>  
 With all its Beauty, seem'd a worthless thing,  
 They cared not for. Pressed down with sorrowing,  
 Almost my faint heart sank, in lone pine blind;  
 We met: thy sympathy breathed sudden power,  
 And joy arrayed me from thy poet-dower.

Sending this poem to Wordsworth, Hamilton asked him not to "show it to many, because [it] might easily be mistaken as implying a disrespect which I do not feel towards science and scientific men."

Although his frustration had seemed especially to concern Airy and his view that the railway was "the highest achievement of man," in this poem it can be seen that Hamilton meant it far more general than that. Indeed, in his *Recollections*, De Vere writes, while describing 1844-1845: "Hamilton used to tell me that the shallow views of almost all the scientific men whom he met at the British Association made him melancholy; and that nearly the only Englishman of our time whom he regarded as a philosopher was Coleridge." Which again illustrates why Hamilton was so happy to be able to talk with a woman like Ellen de Vere.<sup>21</sup>

### Then losing her again

But having "found that [Ellen's] parents would have approved of and desired the union," in the beginning of December 1831 "an incident occurred," which, according to Graves, "caused him to relinquish the hope which of late it had been his happiness to cherish." At the moment Hamilton was going to express his hopes to Ellen, she said that "she could not live happily anywhere but at Curragh," and Hamilton regarded these words as "considerately designed to repress any formal suit for her affections by a gentle intimation that it would not be successful." He "learned afterwards, and certainly it was a consolation to him to learn, that she entertained towards him unbounded admiration and respect – every feeling, in short, that he could desire, except love." He had interpreted her words correctly.<sup>22</sup>

<sup>20</sup> Hamilton will have used the word 'awful' in its archaic sense; inspiring awe.

<sup>21</sup> [Graves, 1882, p. 490], [De Vere, 1897, p. 200]

<sup>22</sup> [Graves, 1882, p. 513], [Graves, 1882, pp. 505-506]. Hankins mentions a correspondence between Graves and Ellen de Vere, written about ten years after Hamilton's death, from which, according to Hankins, "it is clear that Hamilton should have pressed his suit more vigorously." [Hankins, 1980, p. 109]. But he adds that only Graves' part of the correspondence survived, and



Being warned far earlier this time, thus not yet so completely and hopelessly in love as he had been with Catherine, he was clearly better at handling his misfortune although it still took him much time and effort; in December 1831 he wrote a letter to Ellen de Vere, alluding to her, according to Graves, “gentle intimation” that “any formal suit for her affections” “would not be successful.”

“In the hints by which you have so kindly sought to reconcile me to your decision, I can see nothing to diminish my desire for our union, or to shake my belief in our fitness for each other; and this continuing and increasing belief and desire, might at times without anything in your manner misunderstood, produce a momentary hope which would uselessly harass and exhaust me. Perhaps, too, I might have the weakness to afflict you by unavailing importunity. Even now I can with difficulty refrain from urging you to tell me, whether the obstacle to our going forth together as companion-spirits on life’s way, is one which by any efforts or after any interval, I might hope to remove or surmount. If, as you seem to suggest, those efforts could not be successful it would be a criminal desertion of my duty to neglect any chance of preserving my energy of mind, by removing myself from all outward remembrances of that which I cannot forget. [When] I part from you, I shall feel that I have neither wish nor hope; but I have a disciplined fortitude, a sense of duty, and a habit of study; and of these supports I ought not to risk the weakening by lingering within the sphere of fascination. ... Be assured, that if I understand myself, my desire for your happiness, is as ardent as that for my own; and that if it were only for your sake, to spare you pain and to preserve your esteem, I shall exert myself to the utmost, that after we have parted, I may not sink under grief.”

On the 19<sup>th</sup> of December Hamilton wrote to Eliza: “I quite agree with you that the having had an attachment to a worthy object, and having met with a return of friendship, though not of that intense and exclusive feeling which is called by eminence love, is not to be regretted, whatever grief it may occasion. [...] In the present case, I fully trust that the effect of my attachment, though unsuccessful, will be deep and permanently useful. A solemn and not unpleasing sadness seems to pervade my entire being, unmixed with any bitterness. The present grief has moved all the depths of my soul as fully (I think) as that which came upon me about seven years ago, but the mighty waters have now an habitual serenity. The building up of my moral

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while it is known that Graves would have preferred this marriage, it is thus not known whether Graves perhaps interpreted her letters more positively than she had written them. As a confirmation that Ellen did not love Hamilton, it can be read in De Vere’s autobiography: “I could not, of course, but be drawn yet nearer to Sir William R. Hamilton by the profound affection which he felt for my sister almost from the first time that they met, a love recorded in several poems included in the admirable life of him by the Rev. R. P. Graves. His sympathies were perhaps at first attracted to her by the discovery that she had for several years felt the same enthusiasm for Coleridge as a poet which he himself had felt for him as a philosopher. If reverence, gratitude, and a cordial friendship could have been an adequate return for love, he might have been well satisfied; but we must remember Leolf’s reply to Elgiva [from *Edwin the fair*] when she had asked, “Is gratitude, then, nothing?” It was this: “To me, tis nothing, being less than love.” [Taylor, 1842, p. 230]. Such love as his, however, whether fortunate or unfortunate in its immediate issues, could not but in the long run have proved “its own reward.” [Ellen] survived him for many years after he had entirely fulfilled the early promise of his youthful genius, and enjoyed a long career of deserved admiration and ennobling happiness; and to the end she retained the same gratitude for that early affection which I also felt at the time, and have never ceased to feel.” [De Vere, 1897, p. 45]. It is also imaginable that Hamilton was already aware that his very solitary periods, see p. 103, could lay a burden on her, which would make taking such a risk acceptable if they both had fallen in love already; but he now knew she had not.

nature has advanced since then, and a fabric has been reared which, though it hears and feels the storm, yet neither sinks nor reels beneath it. One outward mark and manifestation of this progress is, that I have not now been compelled, nor perhaps able, to take refuge from the grief of the affections by absorbing myself in occupations which engage the intellect alone; the only shelter that I could find from the sorrow of the former trial. Now, though I have engaged myself a little in mathematical and metaphysical thought, yet I have found myself capable of being interested still more in poetical and religious subjects. The recollection of Miss De Vere will have, I feel, an abiding influence on my character, even if my theoretical preference of the married state should dispose my affections to become engaged elsewhere sooner than I now expect.”

And on the 29<sup>th</sup> of December 1831 he wrote to Eliza how he had won something from the “wreck”; the friendship with Ellen’s younger brother Aubrey, “a very uncommon person,” with whom he would be befriended, despite later theological differences, for the rest of his life.<sup>23</sup>

#### 4.1.1 Metaphysicizing

But Hamilton was not doing very well and although, as he wrote to Eliza, he was not searching for a “refuge from the grief of the affections” as he had during the “former trial”, according to Graves at the beginning of 1832 “Hamilton raises his thoughts to the contemplation of the highest motives of exertion, and girds up himself for severe work in the field of Mathematical Optics [...], but [...] it was not possible for him to maintain his spirit at a height above the fluctuations of pain and despondence.”<sup>24</sup>

A few days later the lifelong correspondence between Hamilton and Aubrey de Vere started, and of the first three letters all parts which were given by Graves are copied into this essay since they contain important thoughts and ideas which will be recognizable later: their ideal of a “secluded woman”, Hamilton’s retreat from his fellow scientists and the consequence thereof, his “need of human love” to be soothed in that painful process.

“My dear Aubrey, on New Year’s Day I returned<sup>25</sup> to the Observatory, of which the walks and rooms are full to me of remembered thoughts and feelings. I have returned, I think, “a sadder and a wiser man.” It seemed very strange to find everything so much the same – even the poor heliotrope, though chilled a little, has several blossoms still. One great source of mental struggle and unhappiness is cut off, by my sternly refusing to identify my present knowledge with my past feelings, and so to accuse myself of imprudence in having indulged wishes and hopes which have been baffled, and in having made an attempt which I knew to be hazardous, and which has turned out to be unsuccessful. I grieve that circumstances were such; not that, they being as they were, I acted as I did. The books which I brought from Curragh I left at Adare to be returned: those which I remember are *The Duke of Mercia*, Landor, *Charles Tennyson*, a volume of *Spenser*, two volumes of *Boccaccio*; if there was any

<sup>23</sup> [Hankins, 1980, p. 110], [Graves, 1882, pp. 508-509], [Graves, 1882, p. 511]

<sup>24</sup> [Graves, 1882, p. 512]

<sup>25</sup> After Ellen de Vere’s ‘hint’ Hamilton had accepted an invitation to spend a few days at Curragh. “He did this [...] from a wish to give a pledge and instance of his fortitude, and so diminish to Miss De Vere the pain of having been the involuntary instrument of afflicting him.” [Graves, 1882, p. 506].

other, no doubt it will be taken care of at Adare. Miss Edgeworth's poetry I left at Curragh, and Arnott was with your consent lent to me by Mr. [Dan] Griffin [(.. - 1863)], who also lent me another volume of the same work which I have found very entertaining. The quiet and the local influences of this "star-girded dome" have assisted me to absorb myself very much in scientific pursuits since my return. I am writing a Third Supplement to my Theory of Systems of Rays, and have been engaged in it for the last few days to a most unearthly and Egerian degree: a structure of piled equations rising like an exhalation to my view. It required quite an effort to interrupt myself, to write some little business-note a while ago; but having once broken the spell, I thought I would take advantage of my momentary freedom to remind you that I shall be delighted to hear from you whenever you may be disposed to write, although if a letter should reach me when I am in one of my mathematical trances, it may remain unanswered for a long time. Do not forget that I am longing for an opportunity of reading your poem on poetry. Believe me, my dear Aubrey, very truly yours."<sup>26</sup>

In February De Vere answered: "The account you gave me in your first letter about your mathematical researches has given me very great pleasure indeed. You talk of "the pile of theorems rising like an exhalation before your eyes," with an enthusiasm which I should think more likely than anything else to alleviate the pain which has so long afflicted but not benumbed your feelings, far less impaired the energy of your intellect or your will. The more I have thought on the subject, the more have I felt the necessity of your opposing severity of study to the intensity of your feelings."<sup>27</sup> You may remember, in some of our conversations on this subject, I was very anxious that you should give your affections to another, even although a less worthy object, but one with a mind so entirely unworldly and disinterested as to please you at once by the power of contrast and of harmony of contrast with the rest of the world, and of harmony with itself, and with those principles of beauty which are the mediators of love. Such a character is, I think, sufficiently excellent to excite the imagination and receive the innumerable gifts and graces with which that most benevolent of the faculties delights to endow its objects; such a character, uniting so much warmth of feeling with purity of heart and unity of nature, I allowed was not easily to be found amongst those who have mixed in that universal leveller, society, which the moralists have so long called the "current of life", and which is, I am afraid, a petrifying stream. How many do we find that are but the external and encrusted forms, the fossil remains, of what they were! It is, I believe, the seclusion in which my sister has lived, and the beauty of the objects she has conversed with (those of Nature and of the Imagination), which have made or preserved her what she is."<sup>28</sup>

<sup>26</sup> [Graves, 1882, pp. 516-517]. For the "star-girded dome" see p. 100, for the "trances" see also p. 343. 'Egerian' is the unofficial name for a time span in the geologic timescale, about 25 million years ago. Near the Hungarian city Eger many 'Egerian' fossils were found, the paleohabitat having been preserved by a volcanic eruption. [www.ieger.com/ipolytarnoc.html](http://www.ieger.com/ipolytarnoc.html) [Accessed 20 Sep 2015].

<sup>27</sup> De Vere could not know, of course, that Hamilton had written to Eliza that he was not trying to absorb himself so completely in his work as he had felt compelled to after his "former trial".

<sup>28</sup> According to the website *The Peerage* Ellen de Vere is estimated to have been born around 1813, which means that she would have been eighteen in 1831. That seems to be a bit young to have 'felt for several years an enthusiasm for Coleridge as a poet,' see footnote 22 on p. 101, nor for the statements of De Vere even though he himself was only seventeen. Her eldest brother having been born in 1808, the second in 1812, and Aubrey de Vere in 1814, if she was the second child instead of the third, she may have been born around 1810; both the age differences of the children, and having

"Surely amongst the young, amongst the undefiled, the visionary (as if that which is true to our aspirations were not in the highest degree true) there are many such. I hope you will very soon write to me on this subject, and at least let me hope something from time, and even a short time, if counted by the calendar; since to a man engaged in active life that may be a long time if counted by his achievements, and to a philosopher if counted by his intellectual actions. You, of all men, have the power of living the longest time in the fewest hours."

Hamilton reacted six days later writing: "Your letter, though it ought, perhaps, to have given me only pleasure, and though it did give me pleasure in a high degree, has yet left me, since I received it (which was a day or two ago), under an overshadowing cloud of melancholy feeling. I cannot justify this result, and can only refer it to the circumstance that though in belief and opinion I had long ago given up all reasonable prospect of success, yet the thought of possibility had not, perhaps, been so entirely subdued before as by the very kindness of your letter, combined with its absence of encouragement. And in proportion as this present feeling (in addition to that former knowledge) of hopelessness descends upon me, it reveals what otherwise I might longer have hidden from myself, the insufficiency of study and meditation to constitute my happiness, however much they may contribute thereto, and however useful they may be to a recent wound, by aiding to sear and bind up. Not that I would regard study and meditation as means rather than ends: or if as means, yet as means to any other end, even to happiness itself, rather than to intellectual and moral perfection. But the more I dissent from the prevailing opinions respecting the great use of those scientific meditations to which from habit and reflection I am so much attached (such as the opinion that their great use is to furnish what are called practical applications, or to assist us in remembering appearances), the more do I feel the need of human love, to soothe me under the sense of painful repulsion from those with whom I long to sympathise. The sonnet "Early within herself a solemn throne" gave no exaggerated expression of this feeling, but rather a faint and inadequate one. I differ from my great contemporaries, my "brother-band", not in transient or accidental, but in essential and permanent things: in the whole spirit and view with which I study Science. And if there were no other reason for my continuing to desire "The boon prefigured in my earliest wish, The fair fulfilment of my Poesy, When my young heart first yearn'd for sympathy," I do not dare to hope that in me, while unmarried, the yearning shall ever be stilled for that kind and degree of sympathy from a wife which I feel that I could give as a husband. ..."<sup>29</sup>

"We agreed that habits of comparative seclusion were almost (if not altogether) necessary, for preserving the youthful simplicity and innocence of female character, and keeping it unhardened and unspotted from the world. But it is little likely that the habits of retirement which I have myself been gradually contracting, and which seem to gain rather than to lose in strength, will admit of my soon or often forming an intimate acquaintance with families to whom I have not yet been introduced, and who are themselves retired." <sup>30</sup>

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been twenty-one here, would seem more logical then.

<sup>29</sup> When mentioning the practical applications Hamilton was doubtlessly alluding to Airy's high praise of the railway, see p. 97, and perhaps to celestial mechanics, calculating appearances such as those of comets. For the sonnet see p. 100.

<sup>30</sup> [Graves, 1882, pp. 517-520]. This opinion of men about women was not unusual in those days, perhaps even commonplace; in January 1833 Wordsworth wrote to Eliza Hamilton: "You know how

### Looking for a “retired woman”

Although Hamilton and De Vere thus had talked about the benefits of seclusion for the “female character”, Hamilton’s view on the idea of a retired woman seems to have been a bit more practical than De Vere’s. Probably aware, as mentioned earlier, of the burden he would lay on a wife due to the way he used to work, and now realizing that he was also retreating from his fellow scientists, and thus would work even more solitarily than he probably had expected already, it would all be easier if his future wife would be retired herself.

The idea of searching for a retired wife also seems to fit in with Hamilton’s social inclinations; there are clear indications that Hamilton was not very fond of social gatherings, that he enjoyed company but perhaps only if he could talk about science, poetry and metaphysics. Or when he was not obliged to mingle; De Vere wrote: “I used to see him reading the most arduous works of Plato in the original Greek, wholly unconscious that the room was dinned by a somewhat noisy company.”<sup>31</sup>

In January 1831 Hamilton wrote to Wordsworth: “Of course I must, like all the world, go some time or other to London, and I should think it worth while to do so, if I were thereby to become acquainted with Herschel and Coleridge. But I do not look forward with any pleasure to mixing even for a short time in the miscellaneous society of London, literary or scientific. In general, I have come to dislike the excitement of society, except of persons whom I respect or love. When unhallowed by love or respect, social excitement seems to me, observing my own mind, to partake too much of vanity. For though the greatest part of my vanity is concentrated into the hope of leaving an immortal name, yet enough remains, diffused over my character, to expose me to danger in intercourse with ordinary strangers, and to prepare a painful retrospect for the after-time of self-communion. And even at the times when I have most freely mixed with general society, and most enjoyed the doing so, I felt at moments the startling recollection of progress suspended, and duty unfulfilled; “The burning finger that will not depart, The secret voice that passeth not away.”<sup>32</sup> Mine is indeed a labour of love, a willing and glad devotion; yet this ideal bond, like the links of domestic life, is at once dear and obligatory, and the breaking of it would be followed by not only regret but remorse.”<sup>33</sup>

And although Hamilton’s enthusiasm of being in such good company at Adare, as he had described in the letter to Grace in September 1831, seems to be contradictory to his calling his habits “anchorite” it was not; he did not like social gatherings in general, thus being surrounded by strangers, yet throughout Graves’ biography it can be seen that he brightened up when he was in good company. He loved solitary walks,

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unwilling I am that Females of delicate mind should open their hearts to the rude breath of the Publick, by their Poetry or in any other way. – If therefore your motive for going to Press is benevolence merely that you may assist the distressed of your own unhappy Country, I would certainly say do your utmost to serve them in any other manner, by exertion among your wealthier friends, by writing exhortations in the Newspapers, or other Periodicals, and pointing out how the misery may be relieved. But if unfortunately you are induced to think of publishing by private expedencies or necessities, allow me first to express my sympathy, and to add that my objections to Publication in that case, fall to the ground.” [Wordsworth, 1979, p. 580].

<sup>31</sup> [De Vere, 1897, p. 42]. De Vere does not give a date or time period.

<sup>32</sup> These sentences come from the ninth stanza of Hamilton’s poem ‘It haunts me yet’, see p. 70.

<sup>33</sup> [Graves, 1882, pp. 422-423]. This is a clear statement about how he later would regard his marriage: dear and obligatory. He would indeed always act on that since those two sides were by no means contradictory to him.

yet he seems to have had trouble with being alone for extended times, and therefore it seems to have often been enough to have friends nearby, which would be corroborated by De Vere's story of how he could be reading while surrounded "by a somewhat noisy company."<sup>34</sup>

Hamilton also did not like dancing very much, at least not in his later years; he did dance when he was still young, having learned to dance shortly before he became five years old. His aunt Sydney wrote to another aunt: "Your nephew [...] has begun to dance, or as the man who is teaching him very pompously says, to learn the grammar of dancing. He beats time and does the positions wonderfully, considering he is but a week learning. He astonishes his master by correcting himself whenever he goes wrong, and disturbs his gravity by kicking up his heels in the most comical manner sometimes, and asking him can he tell him what position that is."<sup>35</sup>

And he did dance when, during the travels with Nimmo in 1827, they were in Limerick; according to Hankins he mentioned, in a letter written to Eliza on the 21<sup>st</sup> of August 1827, "dancing with the beautiful sister of a Limerick gentleman at whose house he had twice dined, and another beautiful girl, this one the daughter of a Baroness whom he met on the steam packet to England."<sup>36</sup> Yet, writing to Grace about the "frolics and vagaries" during the "very playful" visit to Adare, Hamilton had enthusiastically described their dancing, but although he had had much fun with the dances, through his description of the effects of the centrifugal force he almost seems to have enjoyed the applied physics more than the dancing itself.

In his later years Hamilton even seems to have been unwilling to make time for balls anymore; in January 1852 he wrote in a letter to De Morgan that "just as a messenger was ordered round, to take to the Chief Secretary's Lodge, in the Phoenix Park, a note from Lady Hamilton, declining in her name and my own an invitation to a ball next week – one can't always keep up that sort of ball – arrived your pleasant letter, with the account of the young French girl, who had never even seen people dance; which, by the way, is all that I have done since I was very young indeed."<sup>37</sup> But at the same time he did not "scruple the being present at a ball;"<sup>38</sup> a month later, in February 1852, he wrote to De Morgan that he did go to a ball, although dancing does not seem to have been his principal purpose to go, "The night before last I attended a grand ball at the Castle, and contrived to pick up a little botany and embryology from Allman,<sup>39</sup> geology from [Joseph Beete] Jukes [(1811-1869)], and news about a poetical friend from Anster, besides feeling a fair enjoyment of the spectacle, and renewing or forming an acquaintance with two men, officers in the army and navy, whom I had not seen since they were children."<sup>40</sup>

Graves suggests that "music gave him pleasure, but his natural taste for it, whatever it may have been in amount, was never cultivated." Yet, when in August 1831 a musical festival was planned in Dublin, Hamilton wrote to Mrs. Rathborne, his

<sup>34</sup> See p. 94, p. 38. For the letter to Grace see also p. 94.

<sup>35</sup> [Graves, 1882, p. 39]

<sup>36</sup> [Hankins, 1980, p. 49], [Hankins, 1980, p. 406 note 21]

<sup>37</sup> [Graves, 1889, p. 315]

<sup>38</sup> [Graves, 1885, p. 675]

<sup>39</sup> In the index Graves assumes that Hamilton was alluding to George Johnston Allman (1824-1904), a Dublin mathematician and historian. Yet George James Allman (1812-1898) graduated in medicine at Trinity College and was appointed Professor of Botany at Trinity College from 1844 to 1856, which makes the 'picking up' a little botany and embryology from him more likely.

<sup>40</sup> [Graves, 1889, p. 340]



neighbour who would later become his sister-in-law: "I write after a long and delightful moonlight walk in your fields, [...] and I wished that the concerts we were talking of could be held in the fields by moonlight, for then I would go to hear them – at a distance."<sup>41</sup> It thus seems to have been the social context, and not the music itself, which withheld him; De Vere wrote in his *Recollections* that Hamilton once introduced him to a "lady who sang with remarkable pathos. She boasted to me that when she sang her first song to [Hamilton] he paid her no compliments, but stood listening while the tears ran down his cheeks."<sup>42</sup>

And he loved listening to the birds; on the 23<sup>rd</sup> of April 1858 Hamilton organized a "Feast of the Poets"<sup>43</sup> at the Observatory, which was amongst others attended by De Vere and Mrs. Wilde. The feast was described by Graves: "The well-beloved garden and the nearly-equally loved sloping field below the little iron gate, were the scenes of merry and serious converse, of recitations and readings, including both original effusions and poems by great masters of the lyre." Three weeks later Hamilton wrote to Mrs. Wilde: "I am unable to recall – so much of human music was there in the poetical party at which you were so kind as lately to assist – whether the birds were singing at that time. This morning I have unlocked the hall-door, that I might listen more freely to the storm, the tempest, the whirlwind of delight, and of music, with which the birds are now surrounding this house and me."<sup>44</sup>

Had Hamilton "pressed his suit [with Ellen de Vere] more vigorously" and married her, then, although not looking for a life full of social gatherings and balls and concerts, and despite her seclusion until 1832, he perhaps still would have gotten such a life since around that time he was becoming very famous. Yet Hamilton was clearly looking for a life in which he could do his mathematics as he was used to, working for hours or days on end whenever he was "in a mathematical trance," and that apparently brought with it the need for a wife who would be herself "retired" in an even more absolute way than Ellen de Vere.<sup>45</sup>

## 4.2 Melancholy

But that does not at all mean that losing Ellen de Vere was not very difficult for him; on the 17<sup>th</sup> of January 1832 Hamilton wrote to Lady Dunraven, who had said that when he was in Adare he "must consider her as a mother,"<sup>46</sup> "In the meantime you may say (to Lord Adare) that I have been very busy at my Optics, which will comfort him. But he would be sorry, and so would you, if you knew what bad habits I am sinking into in other respects; sitting up and getting up later than ever, and grown so much of a hermit that unless I find a pair of garden shears in some of my few visits to the garden, my beard, which already defies razors, will rival the chins of the old

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<sup>41</sup> [Graves, 1882, pp. 442-443]

<sup>42</sup> [De Vere, 1897, p. 50]

<sup>43</sup> In one of his journals Hamilton associated the 23<sup>rd</sup> of April with Shakespeare and Wordsworth, and Graves remarks: "Wordsworth died on Shakespeare's birth- and death-day." [Graves, 1889, p. 604].

<sup>44</sup> [Graves, 1889, p. 99]. Hamilton had met Mrs. Wilde in April 1855 at the house of Colonel Thomas (1801-1879) and Mrs. Georgina Larcom (.. -1898), [Graves, 1889, p. 81], friends of both Charles Graves, see p. 492, and of Hamilton, see p. 225.

<sup>45</sup> For the depth of the trances see for instance p. 343.

<sup>46</sup> [Graves, 1882, p. 510], p. 392



philosophers before he returns to the Observatory. I really have not shaved since I was at a Twelfth-night party in the Park [on the 6<sup>th</sup> of January], which I could not refuse to attend [...]. Notwithstanding my hermit-beard and my bad hours you must not think that I am yielding to “ardour-crushing gloom”; on the contrary, I am fighting very hard, and, as I said, am very busy in optical and mathematical things, along with some religious Metaphysics. Herschel’s *Light*, and Coleridge’s *Aids to Reflection*,<sup>47</sup> lie always under my pillow, and I usually read them in bed for some hours in the morning. In the daytime and in the night I write, and would be well satisfied with the employment of my time if I could suppose that the quality of my writings was at all proportioned to their quantity.”<sup>48</sup>

Adare was with his family at Adare having problems with his eyes and, according to Graves, “under severe medical treatment;” not being able to return to the Observatory he wrote to Hamilton: “I should like to fly over to the Observatory and see what you are doing. Next time you write, tell me all the minutiae, whether the table is well piled with papers, what you are engaged in now; everything about yourself is so interesting to us all here, and I need not say to none more than myself.” Hamilton answered: “The only good thing which I have to report of myself is, that I have really been very busy at my Optics since I returned to the Observatory, not having paid a single visit nor dined out once, though, as I mentioned to Lady Dunraven, I went one evening to a Viceregal party, at which I met Lady Campbell, with whom I had some chat [...]. The most remarkable event in my recent history is my having shaved since I wrote to Lady Dunraven, and having taken a fine gallop in the Park on Planet, who is in great spirits; anything that you have to say about your own rides or walks, or other employments and amusements, will be received by me with interest, for I now remember your home with greater affection than ever.”

A week later he wrote to Adare again: “I rode through the Park on Planet yesterday to Lady Campbell’s, and paid her a long and pleasant visit – the first opportunity of talking to her, except the few minutes at Lord Anglesey’s, which I had enjoyed for half a-year. We talked a great deal on many subjects; one of them was your health, which we all regret much to hear no better account of. I talked also to Lady C. of my recent visit to Adare, but not of the cause of it. Poetry and science, too, supplied us with abundant materials. I repeated some of my late sonnets (not those which were expressly connected with Curragh), and she read me some beautiful sonnets of Shakespeare with which I was not familiar; and she allowed me to take away her marked copy of those sonnets, which, along with a German Annual and some other books, formed a thick and rather stiff padding for the breast of my coat as I galloped home across the Park. She told me that she had been much delighted by the first volume of Arnott’s Physics, which I had ventured to lend her, and I mentioned that I had been almost entirely engaged, since my return to the Observatory, in mathematical and particularly in optical things;<sup>49</sup> not that I do not intend to resume the

<sup>47</sup> [Graves, 1882, pp. 514-515]. For Coleridge’s *Aids to Reflection* see p. 45. J.F.W. Herschel’s 1828 treatise *Light* can be found on pp. 341-586 of *Treatises on Physical Astronomy, Light and Sound. Contributed to the Encyclopædia Metropolitana*. London: Richard Griffin and Company. <https://archive.org/details/treatisesonphysi00hersrich>.

<sup>48</sup> [Graves, 1882, pp. 515-516]

<sup>49</sup> Hamilton would only once, in 1841, when Lady Hamilton was in England, do quite little in a year, see p. 208, and only once, in 1848, he really interrupted his work, see p. 270. At all other times, despite depression or distress, he still could work.

metaphysics after some time, when I finish my Third Supplement,<sup>50</sup> nor that I have not been indulging myself now and then by reading a little of Coleridge, whom I admire at least as much as ever.”

Lord Adare “was now ordered change of scene” to make him read less and spare his eyes, and he “determined to visit London in company with his friend Francis Goold (1805-1848).<sup>51</sup> He then wrote more than once urging Hamilton to join them.” Hamilton answered on the 6<sup>th</sup> of March 1832: “I received with great pleasure a letter from you a week ago, and another this morning, and I am very glad to find you are to have so soon the enjoyment of a visit to London in company with Francis Goold. As to my going, I could give you many fine reasons against it; but perhaps what most prevents me is that I am lazy and not in spirits, lying in bed half the day, and in the worst possible mood for making up my mind to set out on a journey to a place where, whenever I visit it, I expect to meet so much excitement of every kind. If I were not ashamed to apply to myself a passage that talks of “profonde tristesse” when I have so many reasons to be happy, I would say that the following sentence of *Corinne* illustrates what I feel: “Enfin, le découragement qui naît d’une profonde tristesse fait aimer ce qui est dans l’ordre naturel, ce qui va de soi-même, et n’exige point de résolution nouvelle, ou [sic] de décision contraire aux circonstances qui nous sont marquées par le sort. [In short, the depression of mind produced by melancholy, causes us to respect that which is according to the nature or order of things, and acquires no new resolution, no decision contrary to the circumstances in which we are placed. Or: Indeed, the discouragement deep sorrows inculcate teaches men to love that natural order which requires no new resolves, no decision contrary to the circumstances marked for us by fate.]”<sup>52</sup> But as all this is very indefensible, I hope to be in a more active mood whenever you make your next visit to London, and then perhaps we may go together.”

Graves writes: “Urgent and affectionate pleadings from Lord Adare and Lady Dunraven, who were much distressed by the account he gave of himself, overcame the reluctance arising from his depression, and he resolved to make the exertion to which he was so kindly summoned.”<sup>53</sup> On their way to London Hamilton visited the Miss Lawrences, as he wrote on the 15<sup>th</sup> of March to Eliza, and from the eldest

<sup>50</sup> See p. 121.

<sup>51</sup> Francis Goold was a brother of Adare’s first wife, Augusta Goold (1810-1866). Graves mentions that Francis Goold “had distinguished himself as a classical scholar in the college class above Hamilton’s,” and that it was probable that through the Goold family Lord Adare was introduced to Hamilton, [Graves, 1882, p. 318]. Francis Goold was High Sheriff of Limerick and he tragically drowned; it is written in the *Limerick Chronicle* of June 1848 that the “High Sheriff of County Limerick, brother-in-law of Sir Robert Gore Booth; d. in boating accident at Lisadell.” He drowned after having “cheered” and “instructed” “his nephew, young Robert Gore Booth,” who was saved. [www.limerickcity.ie/Library/LocalStudies/ObituariesdeathnoticesetcfromtheLimerickChronicle/1848](http://www.limerickcity.ie/Library/LocalStudies/ObituariesdeathnoticesetcfromtheLimerickChronicle/1848), [www.limerickcity.ie/media/09\\_06\\_48\\_goold.pdf](http://www.limerickcity.ie/media/09_06_48_goold.pdf) [Accessed 22 Jun 2015].

<sup>52</sup> See p. 314 of De Staël-Holstein, Mme A.-L.-G. (1807), *Corinne ou l’Italie. Tome second.* A Londres: Chez M. Peltier. <http://archive.org/details/corinneoulitalie02stauoft>. The first translation, by an unknown translator in 1807, can be found on p. 313 of *Corinna, or Italy*. London: printed for Samuel Tipper. <https://archive.org/details/corinnaoritaly02sta>. The second one, by Isabel Hill (1800-1842) in 1833, can be found on p. 220 of *Corinne; or, Italy*, Standard Novels N° XXIV. London: Richard Bentley. <https://archive.org/details/corinneoritaly00stauoft>. This translation was again improved by L.E. Landon (1802-1838) between 1833 and 1838, yet the quote remained the same. <https://archive.org/details/corinnestoryofit00sta>.

<sup>53</sup> [Graves, 1882, p. 525], [Graves, 1882, p. 528]

Miss Lawrence he unexpectedly received a letter of introduction to Coleridge.<sup>54</sup> Although Coleridge was ill, Hamilton was granted several interviews with him and procured an autograph of *Epitaph on an Infant* for Ellen de Vere.<sup>55</sup>

On the 7<sup>th</sup> of May 1832 Hamilton wrote to De Vere: "You will be glad to hear that I have returned to the Observatory in a better state of health of body and mind than that in which I left it, and in a mood more cheerful than that in which I wrote to you from London. My continued personal intercourse with the scientific men of England assisted certainly in producing this result. Whatsoever may be my own opinion respecting their habits of thought or of thoughtlessness on the subjects which interest me most, I could not see without pleasure and deep joy so many vigorous minds among my English fellow-countrymen engaged in researches of Science, and winning to themselves mansions above the earth, though beneath the highest heaven. [...] After we had left Cambridge we spent a week with the Hammers, and another in North Wales,<sup>56</sup> where we saw much beautiful scenery, and took much bodily exercise, which assisted, no doubt, to restore me to vigour and cheerfulness. My heart even expanded to hope, and some verses, which I shall send you with this letter, were written under the influence of that feeling. You need not be at pains to refute this hope, as if it were a logical deduction, and not rather a transient struggle, a hectic bloom, a momentary life, which, conscious of the absence of all outward aliment, and the array of all antagonist probability, died soon away. I have not, however, relapsed into that Trophonian state described in some earlier lines, which I shall also send you. But I am ashamed of talking always of myself, instead of expressing my anxiety respecting the preparations for your University career."<sup>57</sup>

<sup>54</sup> See p. 98, [Graves, 1882, p. 535]. Miss Lawrence "had known [Coleridge] when a young man."

<sup>55</sup> [Graves, 1882, pp. 539-540]. Only in 1855, when reading letters of Eliza who had died in 1851, see p. 393, Hamilton understood that the poem was important to Ellen de Vere because of her sister Mary (1817-1830), who drowned in the river Shannon. [www.iar.ie/Archive.shtml?IE LA P22](http://www.iar.ie/Archive.shtml?IE%20LA%20P22). In the summer Hamilton visited the Miss Lawrences again on his way home from a meeting of the British Association; in a letter to Eliza he wrote: "In the evening I came out here with my bag, in the hope, in which I was not disappointed, that the Miss Lawrences might have a room to spare. My old friend Miss Arabella L. is absent, but will return to-day, to set out however to-morrow on a party to the Lakes of Cumberland. The eldest Miss L. has shown me a very affectionate and interesting letter, chiefly of a religious nature, which was written to her by Coleridge while I was in London." [Graves, 1882, pp. 575-576]. Remarkably, Hamilton seems to have visited people more often without prior notice; he also contemplated to visit Wordsworth in 1838 on his way to a meeting of the British Association: "It was about nine at night when we arrived at Ambleside, and I was unwilling to run the risk of disturbing Mr. Wordsworth, who has been lately unwell, by going to him then," see p. 195. But also De Vere did that; in 1858 he wrote to Hamilton that he had hoped to see "'Spe-ranza", at whose house I called in vain," [Graves, 1889, p. 98]; it was perhaps not so uncommon.

<sup>56</sup> Hamilton wrote to Wordsworth in June 1832: "Lord Adare and I spent a few days in North Wales among very grand and beautiful scenery: so that between London, Cambridge and Wales, we had seen a good deal before we returned to the Observatory. Lord Adare has since left me, the delicate state of his eyes and health not allowing him to study much, and requiring, or at least making it desirable, that he should spend some months with his family." Hamilton added that he was "not very sanguine" about Adare's subsequent return to the Observatory and indeed, he did not return. [Graves, 1882, pp. 566-567].

<sup>57</sup> [Graves, 1882, pp. 553-554]. According to Pausanias (ca 110- ca 180), a Greek geographer, Trophonius, built a treasure chamber for a king but together with his brother stole from it. His brother then was killed; Trophonius fled into a cave and disappeared. This cave became the seat of an oracle. "Pausanias [...] tells us, that [the cave] was made in the form of a huge oven, and had many particular circumstances, which disposed the person who was in it to be more pensive and thoughtful than ordinary. It was usual in these times, when any one carried more than common gloominess in his features, to tell him that he looks like one just come out of Trophonius's cave. Plutarch

The poems Hamilton mentioned, written during his stay in Wales and on his way home, will follow hereafter; he related these poems to a poem he had written in October 1831, a few days after Wordsworth had written to him that he appeared to be in love. Thinking about his boyhood and being hopeful about Ellen, he had written, “suggested by the sight of the poem bearing the same name but written in 1822:”<sup>58</sup>

ALL HALLOW E’EN.

Nine years have passed, since this autumnal night,  
 With its so many an antique magic rite,  
 This Hallow E’en, did last to utterance win me,  
 Stirring the soul of poetry within me,  
 The heavenly guest of a too earthly fane,  
 And my young lips poured forth that simple strain.  
 Fondly I gaze upon the record, feeling  
 The thoughts of early boyhood o’er me stealing  
 How many-hued my later life hath been!  
 How much of change, how much of sameness seen!  
 How many waves, since then, have tossed my soul,  
 Yet not o’erwhelmed it! the divine control  
 Of inward beauty at the helm presiding,  
 Her fond faint worshipper through billows guiding  
 Of passion, and ambition, and grief, till  
 The tempest-shaken bark at length is still.  
 Yes, it is still, at length; all soothed I am:  
 A long unwonted, deep, and blissful calm  
 Is spread around me like an atmosphere  
 Of some more lovely and more happy sphere.  
 And though, perhaps, this seeming calm may be  
 Only the torrent’s hid intensity  
 Bearing me to some precipice of woe,  
 On will I drift, enjoying, as I go,  
 The beauty of the scene, the water’s smoothest flow.

Knowing now he would not marry Ellen, on the 30<sup>th</sup> of April 1832 he wrote in one of his manuscript books that the following lines were composed “during a very melancholy as well as solitary walk along the banks of a gloomy lake, namely, Llanberis, in Wales.”<sup>59</sup>

Not with unchanged existence I emerge  
 From that Trophonian cavern: not unchill’d

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[(ca 46-120), a Greek historian] mentions, that prophecies of evil events were uttered from the cave of Trophonius; but the allegorical story, that whoever entered this cavern were never again seen to smile, seems to have been designed to warn the contemplative from considering too much the dark side of nature.” See p. 222 of Prevost, F., Blagdon, F.W. (1839). *The Spectator, in Miniature: Being the Principal Religious, Moral, Humourous, Satirical and Critical Essays, in that Publication*. Exeter: J. & B. Williams. [https://books.google.com/books?id=8gFKAQAAMAAJ&redir\\_esc=n](https://books.google.com/books?id=8gFKAQAAMAAJ&redir_esc=n) [Accessed 16 Nov 2015].

<sup>58</sup> [Graves, 1882, p. 481]. That poem is not given in this essay.

<sup>59</sup> [Graves, 1882, p. 560]

Have breathed laboriously its dull, dank air,  
 Wrestled with shapes of pain and fear, and been  
 In mysteries of grief initiate.  
 Buried with hope all gentle wishes lie:  
 But oh, could Hope revive, how soon would they!

The entry in the manuscript book continues: "Contrast with the foregoing the All Hallow E'en lines, written six months sooner, of which [this poem] is after all a not unnatural consequence or corollary. The unrestrained abandonment – not submission – of those lines argued a frame of mind which was not unlikely to be succeeded after a while by disappointment, struggle and despondence." Although Hamilton thus took into account that periods of "deep and blissful calm" would be followed by "some precipice of woe",<sup>60</sup> his moods changed even more swiftly than that; influenced by the "beautiful scenery" in North Wales and the "bodily exercise", already on the next day he recited to himself a poem while pacing the deck of the packet at night, in which he had hope again;

There was a frost about my heart,  
 A cold and heavy chain,  
 But I have felt the frost depart,  
 And I am free again.

Free! and anew Love's holy flame,  
 Hope-fed, about me plays:  
 Free! and I murmur o'er her name,  
 As in the former days.

That name it was, which, murmured,  
 Though half unconsciously,  
 Recall'd, even now, fond feelings fled,  
 A gentle company.

O joy! for now the spirit-death,  
 The numbing trance, is o'er:  
 I breathe a disenchanted breath,  
 Spell-bound from hope no more.

And where the hot Simoom had been,  
 Dews cool the arid land:  
 The searèd leaves grow fresh and green,  
 The parchèd buds expand.

Begins anew sweet Fancy's reign;  
 On absent eyes I gaze:  
 And murmur Ellen's name again,  
 As in the former days.

As he had written to De Vere, he knew that this hope was illogical, "a transient struggle, a hectic bloom, a momentary life" which "soon died away." Having returned to

<sup>60</sup> He had also had such thoughts when he lost Catherine; in the poem 'The Enthusiast' he wrote: "he was perchance too happy", as if that had to be followed by unhappiness, see p. 63.

the Observatory, Hamilton fell ill,<sup>61</sup> and on the 18<sup>th</sup> of May 1832 he wrote a sonnet, according to Graves a “very beautiful and touching sonnet” revealing “another stage of feeling.”

On a wild sea of passion, and of grief,  
 A long and fitful time, my soul hath been:  
 Dark days of storm, with hours of calm between;  
 And bright uncurtainings of heaven, brief  
 But glorious as the lightning; veiled anon  
 By deepest thunder-cloud, while waves without  
 Roared, and within rose mutiny of thought,  
 And the unhelmèd ship went wandering on.  
 Ah, why should Hope again my heart deceive,  
 And in the visions of the night present  
 Pity, and Love, and old remembrance blent,  
 In eyes which I with fear-fed joy believe:  
 And at a reappearing shrine of youth,  
 Breathe a fond vow of dedicated truth!

But he had not yet entirely come to terms with losing Ellen; according to Graves it “seems that towards the close of May he was confined to his room in consequence of a fall from horseback which he had met with when riding in the Phoenix Park with his cousin Arthur. I conjecture that it was when thus a prisoner to the house that he composed two sonnets which were the last of which Miss De Vere was the immediate subject. The first of them does honour both to the composer and to his subject. It manifests his trust in the nobility of her character, and a confidence in his right to an honourable place in her memory, and in his power to earn the perpetual remembrance of men.”<sup>62</sup> Of the two poems Graves gives only the described first one; it was written at the beginning of June 1832:

Sometimes I seem of her society  
 Not yet so desolate, so quite alone;  
 Thrills through my heart some old remembered tone,  
 And in rapt mood again I murmur, We.  
 The paths of soul we trod are trod by me;  
 Is not her mingling spirit with me then?  
 And if I pass into the minds of men,  
 If with my country's name mine blended be  
 In power and love, when the awful change is past,  
 Which makes immortal, will not, in her mind,  
 A tender, a peculiar joy, be twined  
 With memory of me? Too sweet to last!  
 On the dear vision breaks the light of day,  
 And all the dream dissolves in air away.

Already four days later Hamilton wrote one more sonnet to which Graves comments somewhat wearily: “One could wish that the poems prompted by this pure and high

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<sup>61</sup> [Graves, 1882, p. 560-561]

<sup>62</sup> [Graves, 1882, p. 563]

attachment had concluded with the above [poems]; but human nature is weak; and the following [sonnet], composed [on the 7<sup>th</sup> of June] under an access of morbid imaginings, was the actual conclusion.”<sup>63</sup>

Methinks I am grown weaker than of old,  
 For weaker griefs prevail to trouble me.  
 In dream last night I lay beneath a tree,  
 And things around me many a half-tale told,  
 Which for a while I could interpret not,  
 And knew not where I was, until I heard  
 Approaching footsteps, and my heart was stirred  
 By power of Voice and Image unforget.  
 Languid and faint I lay, and could not rise;  
 She, when she saw me, cared not for my pain,  
 But passèd on, with unregardful eyes.  
 O that I were my former self again!  
 Might not the struggle of the Day suffice?  
 Must Night add visions false of cold disdain?

Although it was probably the conclusion of composing sonnets regarding Ellen de Vere, even then Hamilton had not completely relinquished the idea of a “union” with her; in July 1832 he wrote to Adare: “I know too well the danger with which it would be attended, or rather the certain injury to my peace and energy, such as they are, to think that I shall ever, or at least for a very long time, have voluntarily any interview with her, unless it be as a suitor. Perhaps, next year, my admiration and regard continuing as I am sure they will, I may have courage to expose myself again to this latter risk; but to meet E. De. V. again, on the footing of a common acquaintance, would give me a more exquisite pain than even a new disappointment.”<sup>64</sup>

In hindsight, in June 1856, Hamilton wrote in one of his manuscript-books: “I may mention that I believe she thought of me merely as a scientific and poetical person, who was liked and esteemed by her own family – and (I fancy) as one immeasurably older than herself – a sort of lesser Wordsworth; and that she would almost as soon have fancied, during the earlier part of our acquaintance, that Wordsworth himself would be likely to fall in love with her, as that I should. It was (as I judged) with a sorrowful surprise, though not perhaps without some human interest, that she perceived at length the state into which my feelings had (as it were) drifted.”<sup>65</sup>

And he contemplated, also in 1856, his feelings in 1832 when he wrote to De Vere about some earlier poems and then remarked: “[These earlier lines] are not quite so

<sup>63</sup> [Graves, 1882, pp. 563-564]. Graves had remarked earlier: “Of [Ellen de Vere], to the end of his life, he continued to think as of one of two women in whom he had not seen a flaw: the other was Dora Wordsworth [(1804-1847)].” [Graves, 1882, p. 506].

<sup>64</sup> [Graves, 1882, p. 574]

<sup>65</sup> [Graves, 1882, p. 565]. Not entirely unexpectedly, Graves does not completely agree: “In a manuscript-book of long subsequent date I find [this] retrospect of his relation towards her, which shows how able he was, when called upon for judgment involving the actions of others, to go outside himself and give weight to their distinct personality and circumstances. Perhaps, however, it may also truly be said that when he penned this retrospect it was in some degree coloured, or rather paled, as to his relative age and personal attributes at the crisis referred to, by the long lapse of intervening time and the many disturbing and wearing experiences he had passed through.” [Graves, 1882, p. 565].



weak and morbid as that somewhat later and very imperfect sonnet beginning with the words “Methinks I am grown weaker than of old.” In an Observatory we watch the pole-star as it passes above, but also at its transit below the pole. The sonnet last referred to seems to mark the “lower culmination” of my mind, in that sort of morbid gloom which overcast it about the beginning of 1832, but from which I had perfectly rallied before the close of that year, partly with the help of a little travelling, but chiefly (under God) by means of a strenuous and continuous exertion of the intellect, rewarded, among other ways, by the theoretical discovery of the two kinds of conical refraction.”<sup>66</sup>

### Graves’ daydreams

But Graves had his own ideas about how everything should have been; after having described how Hamilton took Ellen de Vere’s remark as a rejection, Graves dreams about how she could have done what in his eyes the future Lady Hamilton could not: “By those who have known [Miss De Vere] the thought must often have occurred that, had he persisted in his suit and gained at last her heart and hand, he would have found in her not only intellectual sympathy, but all that could be given in human companionship to uphold his moral being, to supplement his too subjective nature, and to sustain in healthful order and beauty the course of his daily life.”

Hankins read Graves’ part of the correspondence with Ellen de Vere from 1874 and 1875 and according to him, Graves indeed was of the opinion that Hamilton could have married Ellen de Vere if he had persisted. But since it is unknown where Ellen de Vere’s letters are, or if they still exist, it is also unknown what she thought, in hindsight, about Hamilton. Yet both Ellen’s mother and Eliza were rather sure she would not have married him anyway, which may lead to the conclusion that Graves just could not give up his daydreams about this marriage.

And not everyone shared Graves’ opinions about Ellen de Vere; where Graves concluded that the “maturity of her character [is] the source to all around her of wise counsel and elevating influence,” in July 1833 Dora Wordsworth wrote to Eliza: “What an interesting creature she is – but “I think of her with many fears.” She is indeed too sensitive, too spiritual a being, “to tread the rugged ground, inevitable of Life’s wilderness”: and how she is wrapped up in her brother Aubrey! and though it is beautiful to witness, one cannot think without trembling of the sorrow and distress which even this may bring upon her. But it is wicked to anticipate evil – to draw bitter water out of so lovely a fountain. Once I would have looked on the bright side of this fair picture, but years rob one of one’s youthful gladness, and now I am too prone to dwell only upon the gloomier picture, so you must forgive me.”<sup>67</sup>

<sup>66</sup> [Graves, 1882, p. 564]. See also p. 122.

<sup>67</sup> [Graves, 1882, p. 506], footnote 22 on p. 100, [Graves, 1885, p. 65]. Dora Wordsworth was alluding to a poem which Hamilton had written in November 1831, [Graves, 1882, p. 490], while being deeply in love and before learning that Ellen would not marry him,

Few sorrows yet upon her loving heart  
Have fallen, those paternal halls among;  
From custom’s thrall, and from the vexing throng  
Of common things, and common minds, apart.  
And must her soft feet tread the rugged ground,  
Inevitable, of life’s wilderness?  
Her young enthusiastic tenderness

Keeping in mind the way Hamilton had to work and wanted to work, getting into mathematical “trances” for longer periods of time, and knowing how distressed he could be, something which would, almost certainly, also have happened if he had married Ellen de Vere, it can be doubted whether, if she really was so sensitive as Dora Wordsworth claimed, this would have been the better marriage Graves day-dreamed about. It was, therefore, honest of Graves to give Dora’s letter.<sup>68</sup>

### 4.2.1 Cherished remembrances

In later life Hamilton’s remembrances of Ellen de Vere were pleasant ones, as can be seen from Graves’ comments on a visit from Ellen’s family. In 1835 she had married Robert O’Brien (1809-1870),<sup>69</sup> and Graves writes: “Late in the autumn of [1855] a visit was paid to [the] Observatory, which stirred into activity remembrances which had not ceased to be cherished by Hamilton, and enabled him to show the interest of a friend in persons whom he had not before seen. One day in October, Mr. Robert O’Brien arrived at Dunsink with his two young daughters and their two brothers.”<sup>70</sup>

Mrs. O’Brien “had desired that her husband and children should be known to Hamilton and his wife, and advantage was taken of their being for a short time in Dublin to make an arrangement for the purpose. Friendly feeling was manifested on all sides, and Hamilton took special delight in showing to the daughters an experiment which he remembered having shown to the mother, and never in the long interval to anyone else – that of a key floating on mercury.”

This visit gives rise to one of the conjectures in this essay; that it was not the depth of Hamilton’s feelings towards Catherine and Ellen, but rather their personal circumstances which caused the largest difference between his remembrances of them, thereby contradicting the widespread assumption that Hamilton only loved Catherine for the rest of his life.

### The influence of Catherine’s unhappiness

This idea is supported by the fact that in a letter to Lady Campbell, written on the 15<sup>th</sup> of August 1832, Hamilton explicitly described the depth of his feelings for Catherine and Ellen by writing: “I make but a poor return for your friendly letter by writing now after so long a time. But to whatever you attribute my delay let it not be to any indifference or want of enjoyment when yours arrived; nor yet refer it wholly to that state of deep depression the existence of which you long since knew and to which

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Must rude shapes startle, tangling briars wound?  
O that to her I might be as a guide  
And guard, along that dark and thorny way!  
Some spirits surely would the call obey  
Of earnest Love, and thro’ the charm’d air glide,  
Won by my deep prayer, till our path were given  
Almost the light and fearlessness of heaven.

<sup>68</sup> See p. 103, p. 289, p. 401.

<sup>69</sup> Robert O’Brien was the younger brother of William Smith O’Brien, see footnote 8 on p. 95.

<sup>70</sup> [Graves, 1889, p. 23]. According to the website *The Peerage* Ellen de Vere and Robert O’Brien had three daughters and two sons. [www.thepeerage.com/p8492.htm#i84912](http://www.thepeerage.com/p8492.htm#i84912) [Accessed 12 Nov 2014].

the verses on the outer page allude.<sup>71</sup> Your feelings of regard and esteem would both be pained, if you thought that I was habitually overpowered by gloom; but happily it is not so. However, since that time when your affectionate sympathy first manifested itself towards me, I have had another affliction of the same kind and indeed of the same degree, except that my mind had been a little better disciplined to receive it.”<sup>72</sup>

Realizing that Lady Campbell was, perhaps next to De Vere, the person he was the most open and honest to, he did not have to pretend anything to her, the feelings he described to her can be taken to be his true feelings, and in this letter he stated that his feelings for Ellen and Catherine were indeed of the same degree. But next to being “better disciplined” now, another difficulty was described by himself in 1849 as mentioned before, that he learned so late of Catherine’s engagement. That made it so much harder for him to cope with losing her, taking him so much more time than losing Ellen.

The mere fact that he had dared to visit Catherine in 1830 makes it entirely possible that he had already come a long way in overcoming his loss, that he had, indeed, been in rather “good spirits” while travelling through Ireland in 1827; in 1832 he wrote to De Vere that in the years between 1825 and 1832 he had suffered with “lucid intervals indeed.” But learning during this visit that Catherine was unhappy, as can be read in the poem ‘We two have met’, will have teared open all his old wounds, something which may have been aggravated further by his usual susceptibility to sufferings of people close and dear to him, leading to his “morbid despondency”.

And from the statement that his feelings for Catherine and Ellen were of the same degree it can be seen that he really had recovered from his despondency after the visits to and from Catherine in 1830, that in 1831 he had come to terms with her loss, that he really had fallen in love with Ellen. The large difference between Hamilton’s “cherished remembrances” of Ellen and his “friendly feelings” regarding the visit of her family on the one hand, and the “morbid despondency” he felt after the visits to and from Catherine in 1830 on the other hand, is thus supportive of the idea that both Catherine’s and Ellen’s personal happiness was in the end more influential to the nature of his later remembrances than how hard it was for him to lose them.

Knowing that Ellen was happy meant that he could also be happy for her, and the same might have held for Catherine. An argument supportive of that idea is that for Hamilton the mere thought of Lady Campbell befriending Catherine had lifted his spirits already; he had doubtlessly expected Lady Campbell to understand Catherine’s feelings and comfort her as she had comforted him. And even if Catherine would not know that Hamilton had anything to do with it, it would still have ‘cheered and soothed him not the less.’ It will have been the only socially accepted way in which he could have helped both her and himself; “procuring for her” a friendship with such a wonderful and comforting person, and at the same time establishing a way to receive news from her, news which then would be happier, making also him happier.<sup>73</sup>

If, like Ellen, also Catherine had been happy, Hamilton’s life would have been much easier, he probably even could have befriended her and her family, just as he

<sup>71</sup> According to Graves, Hamilton was indicating the poem ‘My Birthday Eve’, see p. 118.

<sup>72</sup> See p. 86, [Graves, 1882, pp. 600-601]. This is again a sign that Hamilton did not think of Catherine as his only, perhaps even predestined, love. See also footnote 32 on p. 65.

<sup>73</sup> See p. 65, p. 67, p. 122, p. 86, p. 88.

could be very friendly to Ellen's. Having been so influenced by Catherine's unhappiness after the 1830 visit might perhaps also be an explanation, next to the social strictness of those times, why he did not visit her again; he may have realized that he would not be able to handle seeing that. But only in 1848 he would learn how terribly unhappy she was; Victorian times were difficult times, for Hamilton, but mostly for Catherine.<sup>74</sup>

### 4.3 A resolute change

In the summer of 1832 Hamilton began to see why it was so hard to overcome his tendency to give in to depressed thoughts and feelings and how much it influenced his life; on the 2<sup>nd</sup> of August he described this in a poem:

MY BIRTHDAY EVE.

Oh if from secret suffering, and the shame  
 To think how long and often it could tame  
 Those energies which in their youthful pride  
 On an imagined tamelessness relied,  
 Deeming themselves for some high task designed,  
 Some ministry to benefit mankind,  
 Some perilous quest in the obscure world of mind;  
 And full of faith, that, to whatever foes,  
 They should a joyous battle-front oppose,  
 And more than conquerors be, and from life's surge,  
 However rough, exultingly emerge: –  
 If from the pang with which I now recall  
 That confidence, and think how vain 'twas all,  
 How soon those powers from freedom sank away,  
 And, chained by grief, uneasy prisoners lay;  
 So that I view a passion-wasted life,  
 Rapture, and agony, and stoic strife,  
 Where I had deemed all passion I could quell,  
 And fondly looked that only calm should dwell: –  
 If from this pang of baffled confidence  
 In my own powers, and for their vain expense,  
 If from this shame o'er too much trusted Will  
 Found wanting, and the weakness lingering still,  
 I could indeed the appointed lesson learn,  
 And with full trust and humble heart could turn  
 To the unfailing Fount of power and peace,  
 The fever of the soul at length should cease:  
 With milder pain, and more of hope, to-day,  
 My seven-and-twentieth year should pass away.

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<sup>74</sup> See p. 87, and chapter 8.

Hamilton had discovered, as it were, how trying to keep his “philosophic calm”, his striving to be stoic and therefore “suffering secretly”, his melancholy and brooding on his grief, had hindered the energy he needed to achieve his goals, giving him a “passion-wasted life”. This insight seems to have been the result of a process which had slowly been taking shape in his mind, which became recognizable in his contemplations about Airy and the railway, and of which the onset can be found in the correspondence with De Vere from February 1832.<sup>75</sup>

After losing Ellen de Vere Hamilton had written to Eliza that, his mind “better disciplined” this time, he had “not now been compelled, nor perhaps able, to take refuge from the grief of the affections by absorbing myself in occupations which engage the intellect alone; the only shelter that I could find from the sorrow of the former trial.” And he had continued the letter by writing that Ellen had had “an abiding influence on my character, even if my theoretical preference of the married state should dispose my affections to become engaged elsewhere sooner than I now expect.”

This last remark seems to have been directly related to his slowly growing frustration about his fellow scientists, which around this time gained more importance in his life. He had written to De Vere how the “absence of encouragement” of De Vere’s letter had revealed “what otherwise I might longer have hidden from myself, the insufficiency of study and meditation to constitute my happiness.” He had discovered already that striving for a “philosophical calm” had not been good for him, but not knowing what not yet had been thought, and still deep within his melancholy about Ellen de Vere, Hamilton had mainly used this new thought to show how he needed ‘human love to soothe him in the painful process’ of retreating from his fellow scientists in the “whole spirit and view with which I study Science.” He realized, or started to realize, that he needed someone for himself, someone who would be at his side in his scientific loneliness.<sup>76</sup>

It can be surmised that Hamilton was thinking of the psychological safety of his youth, living in Trim and being surrounded by a warm and supporting family, enabling him to achieve the highest grades possible. Indeed, if he ever wanted to reach the “summit of the hill”, he would need that same amount of safety he had felt then, and after some years living with his sisters he apparently realized that, however much he loved them, they could not give him the deep feelings of security a loving wife would be able to give.<sup>77</sup> That will have been one of the main reasons that he developed a “theoretical preference” for the “married state”, something he further specified in his letter to De Vere: “And if there were no other reason [than starting to differ from his fellow scientists] for my continuing to desire “The boon prefigured in my earliest wish, The fair fulfilment of my Poesy, When my young heart first yearn’d for sympathy,” I do not dare to hope that in me, while unmarried, the yearning shall ever be stilled for that kind and degree of sympathy from a wife which I feel that I could give as a husband.”<sup>78</sup>

And now, in the beginning of August 1832, after having written the poem “My Birthday Eve”, following the insight that he had wasted time due to the way he tried

<sup>75</sup> See p. 90, pp. 102-104. For the poem see [Graves, 1882, p. 595].

<sup>76</sup> See p. 64, p. 97, p. 100.

<sup>77</sup> See for a confirmation thereof p. 208.

<sup>78</sup> See also p. 104.

to cope with his grief, he started to learn how to handle himself; he finally knew what to do. In a letter to De Vere, written on the 12<sup>th</sup> of November 1832, he described his change that summer: "I determined that I would vigilantly and resolutely exclude all voluntary recollection of your sister, and refuse, so far as in me lay, to indulge myself by dwelling on involuntary remembrance."<sup>79</sup>

On the 21<sup>st</sup> of September Hamilton expressed his change of feelings in a sonnet:

The Spirit of a Dream hath often given  
Pinions to me, and I have sought the sky,  
In haste my frail Icarian plumes to try  
And soar abroad in the open light of heaven:  
And all the more have passionately striven  
To enjoy without delay my magic dower,  
Because I knew it was a transient power,  
And that to this bright day comes soon an even.  
So, if Hope's sunshine, for a moment shed,  
Brighten life's path, although not dark before,  
— Oh heaped with blessings in abundant store! —  
A path which yet unhoping on I tread,  
My spirit springs to meet the transient boon,  
A deep voice whispering, it will pass full soon.

De Vere answered in October 1832, after having read the poem "My Birthday Eve": "I cannot bear that expression "passion-wasted life". Is not passion the most essential means by which our souls are purified and elevated? I think it is passion more than anything else, I might say, even suffering, that gives unity to the moral character; without it, we should never have sufficiently strongly imprinted on the mind the Idea of Duty; and I believe amiability and high intellect will always require such a principle, for the purpose of effecting their union, in a degree proportioned to the intensity of each."<sup>80</sup>

But of course, Hamilton's discovery of how to handle his long periods of melancholy did not mean that he did not value passion anymore, it meant, and that was in first instance the most important aspect of this discovery, that he now knew that he had lost valuable time and energy to this passion without hope; that if he would not change his ways he would risk never to fulfill his boyhood dreams. It can even be surmised that he had started to realize that if he would not free himself from former pain he would not be able to open up himself for new love and new passion, although he knew that he needed the comfort of a love, of someone who would be there for him, to "soothe" him during the loneliness of his work.

<sup>79</sup> See p. 127. It must be noted that one of the reasons that Hamilton was able to make such a rigorous decision was that he had an enormous self-confidence; even having suffered the severe losses in his youth he had grown up in a very loving, caring, loyal and proud family; he indeed never doubted his friends' love for him. And it was no fleeting thought; many years later, in 1856, he would describe his change to De Vere as the "perfect rally" of the "morbid gloom which had overcast his mind" through the "strenuous and continuous exertion of the intellect," see p. 115. The fact that he would so clearly recall this change so many years later again confirms the conscious intention of this mental process.

<sup>80</sup> [Graves, 1882, p. 615]

Now he was indeed looking for a wife, but not just anyone; she had to be “re-tired”, living far away from society at large which seems to have been very non-Victorian for ladies of his circles. And what was more, she had to be able to cope with being alone very often, when he was immersed in one of his mathematical trances which could take hours or even days, while at the same time being able to support him, and not withhold him, in his pursuit to win his immortal name.

In the November letter to De Vere Hamilton wrote about the foregoing sonnet that it had marked the “revival” of “the power of hope”, and in the weeks following the writing of this sonnet this power of hope began to show “its effect in restoring tone of mind and even [his] health.” And through the restoration of his inner strength this “power of hope” brought with it his most publicly engaging discovery.<sup>81</sup>

## 4.4 The power of hope

That summer Hamilton had worked on the last parts of his ‘Third Supplement to an Essay on the Theory of Systems of Rays’ which forms, together with the original essay and the earlier supplements, the onset of Hamiltonian mechanics.<sup>82</sup> On the 12<sup>th</sup> of September Hamilton described his work to Adare: “[I] have spent the greater part of the time [...] in my optical studies. Great masses of my manuscripts I have, after examining their contents, and sucking out their marrow, condemned to the flames: and have written out for the press, in a form which I really think I will let stand, with perhaps verbal alterations, a large part of the tenth or twentieth copy of my Third Supplement. The various delays and interruptions have made this Supplement more complete, by giving me time to render the subject more familiar to myself, and more of a whole: many old and new separate investigations having gradually arranged themselves better in subordination to my general view.”<sup>83</sup>

On the 13<sup>th</sup> of October 1832 Hamilton wrote to De Vere: “For some months now I have been almost uninterruptedly engaged in my mathematical investigations, and feel half glad, half sorry, when I think that I have nearly finished for the press a Third Supplement, longer than either of my two former ones. Glad, because I must not detain the printer and Academy too long, and have other business of my own besides; sorry, because the labour of composition has been so pleasant a resource. The continuous exertion has indeed produced an effect like that ascribed to bodily exercise, and I feel as if my health of mind and even of body were greatly improved within the last two months. In what you said of the good effects of suffering, I fully and cordially agree. But when I think of my having passed nearly eight years in a state of mental suffering, with lucid intervals indeed, and at the worst times able to exert myself that

<sup>81</sup> [Graves, 1885, p. 3]. See for the letter p. 127. This “revival of hope” was clearly different from the hope against better judgement Hamilton had experienced during his visit to Wales, see p. 112.

<sup>82</sup> For the original essay see p. 57. Graves gives Hamilton’s original account of the ‘Theory of Systems of Rays’ to the Royal Irish Academy in 1827, see [Graves, 1882, pp. 228-231]. The shortest explanation of what he was doing can be found in a letter to Coleridge, written in February 1833: “I am still engaged, and expect to be so for many years to come, if I live, on a work which has already occupied me since I was about eighteen [see footnote 7 on p. 54], in attempting, with the help of the differential or fluxional calculus, to remould the geometry of light by establishing one uniform method for the solution of all the problems deduced from the contemplation of one central or characteristic relation.” [Graves, 1885, p. 37].

<sup>83</sup> [Graves, 1882, p. 591]



I might not inflict too much upon the sympathy of my friends, I cannot hide from myself the conclusion, that the defect in the character of Coleridge which prevents me from adopting it as an ideal exists in my own also, the excess of  $\pi\acute{\alpha}\theta\omicron\varsigma$  [pathos] over  $\eta\theta\omicron\varsigma$  [ethos].”

And in that same month, October 1832, Hamilton “was led to anticipate from theory two new laws of light, to which he gave the names of Internal and External Conical Refraction.<sup>84</sup> So sure was Hamilton’s grasp of his mathematical results, and of the necessary correspondence with them of physical phenomena [...] that on the [23<sup>rd</sup> of October] he requested his friend Mr. [Humphrey] Lloyd, [...] Professor of Natural Philosophy, to institute experiments for the purpose of verifying theoretical anticipations. The task was promptly undertaken.” Preparing such thin crystal plates as needed for the experiment proved to be very difficult, but on the 14<sup>th</sup> of December Lloyd wrote: “Dear Hamilton, I write this line to say that I have found the *cone*. At least I have almost no doubt on the subject; but must still verify it by different methods of observation. I have no time to say more at present than that I observed it in a fine specimen of arragonite which I received from Dollond [(1774-1852)] in London since I saw you last.”<sup>85</sup>

Still in December Hamilton communicated this result to Airy, but it took him until the end of January 1833 to convince him; Airy replied to a new explanation written by Hamilton while he was at Bayly Farm: “If I had not been very dull, I might perhaps have guessed at some of it before.” Lloyd’s extended results were published in February and March and Graves writes: “In the XVIIth volume of the *Transactions* of the Royal Irish Academy, Part I., which was published in the summer of 1833, may be found both Hamilton’s Third Supplement, containing his theoretical discovery of Conical Refraction, and Professor Lloyd’s perfected account of the experimental manifestations of both kinds of it [internal and external conical refraction], accompanied by plates of diagrams representing the phenomena. To these Papers the scientific reader is referred for full information on the subject. They link the names of Hamilton and Lloyd in an enduring bond.” It was, chiefly, this theoretical discovery of conical refraction which Hamilton was knighted for in 1835.<sup>86</sup>

<sup>84</sup> [Graves, 1882, pp. 619-620], [Graves, 1882, p. 624]. Parts of the ‘Third Supplement’ were presented to the Royal Irish Academy on the 23<sup>rd</sup> of January and the 22<sup>nd</sup> of October 1832. [Hamilton, 1833, p. v]. Graves suggests that Hamilton found his conical refraction around the 12<sup>th</sup> of September when he wrote the letter to Adare, [Graves, 1882, p. 623]. But while Graves already remarks that Hamilton did not write about it in this letter, Hamilton also did not mention it in his letter to De Vere of the 13<sup>th</sup> of October. Moreover, in a letter to Herschel, [Graves, 1882, p. 627], Hamilton wrote “when in October I was finishing my Third Supplement for the Royal Irish Academy, I deduced [...] some results respecting the focal lengths and aberrations of lenses formed of [biaxal] crystals. [...] I was led to expect that under certain circumstances, easily deduced and assigned by me from these geometrical properties, a single incident and unpolarized ray would undergo not double but conical refraction. I announced this expectation to the Royal Irish Academy at their monthly meeting in October, when I was giving an account of the results of my Third Supplement.” Hamilton will thus most likely have discovered conical refraction between the 13<sup>th</sup> and the 22<sup>nd</sup> of October 1832.

<sup>85</sup> [Graves, 1882, p. 626]. According to the website *Grace’s Guide to British Industrial History* George Dollond was an optical and scientific instrument maker; born as George Huggins, in 1819 he had taken over the family company and changed his name to Dollond. [www.gracesguide.co.uk/George.Dollond](http://www.gracesguide.co.uk/George.Dollond).

<sup>86</sup> [Graves, 1882, p. 632], [Graves, 1882, p. 636]. The complete 17<sup>th</sup> Volume of the *Transactions* was published in 1837, but Hamilton’s ‘Introduction’ to the ‘Third Supplement’ is signed June 1833; it will have been published in parts. The plates and diagrams made by Lloyd can be found on the

## Being able to laugh again

In the meantime, having regained his hopes Hamilton could also laugh again; in a letter to De Vere on the 24<sup>th</sup> of September 1832 he described a visit of an Italian Astronomer to the Observatory: "I catch a moment of leisure and spirits, while I am laughing at the recollection of my attempt to talk French for the last hour or two to Signor Nobili, an eminent Italian Astronomer, to finish a letter to you. I had never before attempted to say more than a sentence or two in French, although I read the language with sufficient ease; and I just knew enough of conversational French to be aware of the ludicrousness of my attempt, and to have a continued internal struggle to keep my own countenance, while I was imagining the struggle that the polite Signor must have had in keeping his. The pent up laugh came forth like a volcano when he was gone, and has scarcely subsided yet. If it had not been for the aid of the telescopes, and so-forth, which served in part as interpreters, I could hardly have been sure that we were always talking on a common subject."<sup>87</sup>

According to Graves, halfway through October "De Vere came up to Dublin to enter the University. He was taken by Hamilton to the Royal Irish Academy on the evening of the 22nd of October – the memorable evening when the latter presented his Third Supplement, and announced the discovery of Conical Refraction – and on the next day accompanied him to the Observatory;" this visit lasted ten days and was also full of laughter. Hamilton had invited De Vere to come to the Observatory, and Graves writes: "Alluding to a reference by A. De Vere to their last meeting at Adare, when they had sat up till four o'clock in the morning, talking of all things mundane and extra-mundane, and laughing as heartily as they talked earnestly, Hamilton says, in his note of invitation, "Doubtless we shall have many more intellectual laughs at men and things, free from all bitterness of contempt, and walks and arguments and reminiscences."<sup>88</sup>

And at the end of October Hamilton wrote to de Vere: "I intended to write to you this morning, but unluckily I can scarce do anything but laugh, after the sea and

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unnumbered pages between Hamilton's paper, [Hamilton, 1833, pp. 1-144], and that of Lloyd, [Hamilton, 1833, pp. 145-157]. Hankins describes how Hamilton's following Optical-Mechanical Analogy which started with "applying Algebra to Optics," [Graves, 1882, pp. 228-231], lead to applying this method to Dynamics, which in turn lead Erwin Schrödinger (1887-1961) to his wave formulation of quantum mechanics, [Hankins, 1980, pp. 199-209].

<sup>87</sup> [Graves, 1882, p. 614]. Although De Vere mostly sounds very serious in Graves' biography, he certainly could also have fun about himself. The day before Hamilton wrote this letter De Vere had written to him: "I will tell you a story that will amuse you. I was riding to Curragh the other day, in company with a Scotch friend, a vehement admirer of Dugald Stewart [(1753-1828)], [Thomas] Reid [(1710-1796)], [Adam] Smith [(1723-1790), all three Scottish philosophers], and in a word, of all sensible people, who preserve a character for sense by never allowing anything like genius to appear, and "get on" in the world not by the aid of great heads but by a much more useful help, viz., sharp elbows. We became engaged in a philosophical discussion, and I was declaiming about "eternal truths", when the pony he was riding lost his footing, in consequence of his master's forgetting to hold the reins, and after staggering for about two minutes tumbled on his knees and deposited his rider on the top of his head: he rolled over two or three times, and then looking up at me, before he had time to rise, exclaimed, "this comes of your Eternal Truths!" He then jumped up, ran to the pony, who was lying flat on his back in the middle of the road, raised him, mounted, gathered himself well in the saddle, and said, "now listen, hang your Eternal Truths! and thereanent we will have no more such-like gibberish! as soon as you are at home you may mystify yourself and me, and the creature, as much as you like; but while I am on horseback I will have no more conjuring. I thank God that I have not broken my head."<sup>88</sup> [Graves, 1882, pp. 612-613].

<sup>88</sup> [Graves, 1882, p. 620]. See for the duration of ten days p. 186.

tempest of laughing in which I was tossed last evening.” He described how an old college acquaintance had kept them all “in roars of laughter” during dinner, followed by an evening full of funny stories and improvisations. He ended his letter writing: “Believe me, dear Aubrey, your attached and ridiculous,” &c.

Yet, knowing now how not to give in anymore to feelings of “morbid gloom” over longer periods of time does not at all mean that Hamilton was from now on a lighthearted and cheerful man. Although he had an enormous inner confidence and led an overall happy life, through his solitary way of working, apart from his fellow scientists, being in “mathematical trances” regularly and feeling the “pains or pleasures of thought-birth”, combined with his never being good at being alone which may have been a result of the losses in his youth, he seems to have been more dependent than usual on the people he loved. He suffered when they were unwell or ill, and that could make him very unhappy and very distressed. But he was never again so gloomily depressed for such a long time.<sup>89</sup>

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<sup>89</sup> [Graves, 1882, p. 621], p. 59, p. 307, p. 103, p. 343

## Chapter 5

### A husband

Being mentally and physically healthier than he had been for a long time, on the 28<sup>th</sup> of October 1832 Hamilton wrote a poem which Graves gives in the first volume of his biography remarking: “‘The Rydal Hours’ breathe a happier tone of returning vigour, yet still tempered with remembered suffering.”<sup>1</sup> Graves clearly did not recognize the transition from being overall melancholic to being able to feel grief and sadness yet not without hope, and almost illustrative for his negative opinion of Helen Bayly, only in the beginning of the second volume he mentions in a footnote that with the “beloved brow” Hamilton referred to her; apart from a short remark accompanying the invitation to see Jupiter in August 1831, she had not yet been introduced. She had been “dangerously ill”, and Hamilton had been anxious for her.<sup>2</sup>

#### THE RYDAL HOURS.

To me already are those Rydal hours  
Become a sacred and an antique time:  
An unforgotten time, but far away,  
Far, far withdrawn into the azure depths  
Of holiest and most starry memory;  
And from the eternal fountains, not from earth,  
Not from the present and the visible,  
Kept fresh in Power and Beauty. I can wander  
At will through that Elysian land,<sup>3</sup> and taste  
The freshness of those fountains, and the breeze  
Fans me, and I become what then I was:  
With hope still strong within me, and the spirit  
Of joy, Antæus-like, revived,<sup>4</sup>

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<sup>1</sup> [Graves, 1882, p. 594]. Rydal refers to Rydal Lake or Rydal Mount where Wordsworth lived.

<sup>2</sup> See p. 130, [Graves, 1885, p. 2].

<sup>3</sup> The Elysian fields connote Paradise or the afterlife, therefore, a blissful land.

<sup>4</sup> Antæus wrestled passers-by to death in order to collect their skulls. Herakles killed him after discovering that Antæus lost his strength when he was lifted off the ground. Hamilton thus may have referred to Antæus in order to describe that he had lifted himself up, making his melancholy strengthless and therewith reviving his spirits. Or that he succeeded by realizing something non-obvious, just as Herakles had done when finding out how to win.

Bright-wingèd ministers of brief delight,  
 Whose very mirth seems tender now and holy.  
 I can suspend remembrance, and yet feel,  
 Feel in the inner heart, but not in thought  
 Embodied, nor in consciousness distinct,  
 That Grief has since come down; that Hope with me  
 Only abideth now as calm resolve,  
 And silent readiness for future pain,  
 And trust to feed upon ideal food  
 And heavenly: and that sadness also there,  
 Where it had seemed that only joy should dwell,  
 Joy from all delicate blossoms gathered,  
 Perennial flowers upon Hyblean heights<sup>5</sup>  
 And by the murmuring rills of Helicon,<sup>6</sup>  
 Has with an overshadowing power come down  
 In the eclipse of one beloved brow<sup>7</sup>  
 Patiently languishing. All this can I  
 Awhile forget, and, in the blue depth dwelling,  
 Feel that already are those Rydal hours  
 Become a sacred and an antique time.

### A dim perspective

On the 7<sup>th</sup> of November 1832 Hamilton wrote to De Vere: “Since I wrote last, a dim perspective of possible marriage has floated past me, within the last few days. If the thought had been formed when you were here, I would have spoken of it then. The person is not at all brilliant,<sup>8</sup> but one whom I have long known and respected and

<sup>5</sup> The Hyblean or Iblean plateau is a part of Sicily. In 1693 an earthquake destroyed eight towns on the plateau, which then were rebuilt in a baroque style on or beside the former towns. It is declared a World Heritage Site in 2003: “This group of towns represents the culmination and final flowering of Baroque art in Europe.” <http://whc.unesco.org/en/list/1024> [Accessed 01 March 2015].

<sup>6</sup> In Greek mythology mount Helicon was sacred to Apollo and the Muses. “From Helicon’s harmonious springs A thousand rills their mazy progress take” are lines from ‘The Progress of Poesy. A Pindaric Ode’ (1757) by Thomas Gray (1716-1771). [www.thomasgray.org/cgi-bin/display.cgi?text=pppo](http://www.thomasgray.org/cgi-bin/display.cgi?text=pppo) [Accessed 19 Apr 2015].

<sup>7</sup> Hamilton’s remark that there was sadness “where only joy should dwell” is more extensively repeated in the poem on p. 138 beginning with ‘In the many changing flow’, as if he could not begin to imagine why such a lovely person must suffer.

<sup>8</sup> This was of course not meant as an insult. Hankins notes that Hamilton, who doubtlessly was extremely brilliant, was used to talking to ‘less intelligent’ people, living at the Observatory with his sisters who were, except perhaps for Eliza, also “not brilliant”. [Hankins, 1980, p. 119]. But since even most scientists around him were not as intelligent as he was, Hamilton thus hardly ever spoke with people who shared his level of intelligence. This is perhaps one of the reasons why he often tried to explain things to people who would evidently not understand what he was talking about, see p. 335; as mentioned earlier, it is easy to imagine that Hamilton would not know how to differentiate between various levels of intelligence, between who could and who could not follow his reasonings. This could also explain why Hamilton used so much capitalizing and italicizing in his letters and in his books; he probably did not have a very good understanding about how to reach other people intellectually and hoped that emphasis and being extremely clear would help, correcting every sentence which could lead to a thought he had not intended, forgetting that those thoughts were his own. He described his intentions in a letter to De Morgan: “How abominably interlined and

liked, although the thought of marriage is so recent. However this new vision may turn out, whether the thought shall ripen into purpose, and the purpose lead to successful effort, or whether (which is at least as likely) the whole shall vanish into air, I feel that the suffering of the present year has not been useless or unprofitable. Affliction, besides its religious uses, often strengthens and deepens the character; and I persuade myself that it has done so in my case, and that I have become “a sadder and a wiser man” in the depths of the spirit, though laughter may sometimes rudely stir the surface, as in that evening with [my old college acquaintance], and even in some hours with you.”<sup>9</sup>

### Again the power of hope

This letter is the last personal letter given in the first volume of the biography, and Graves starts the second one with Hamilton’s awakening feelings for Helen Bayly. As referred to in the poem ‘The Rydal Hours’, that summer she had been dangerously ill and Hamilton had been very worried about her. Graves assumes that it was this concern for her poor health which “prepared the way for tenderer and warmer feelings;” whether or not this is true, Hamilton gradually began to feel more for Helen and sometime in the second week of November 1832 he took the “decisive step of making [his feelings known] to Miss Bayly.”<sup>10</sup>

On the 12<sup>th</sup> of November Hamilton wrote a letter to De Vere of which a small part was also quoted earlier,<sup>11</sup> in which it can be seen that the return of the “power of hope” had not only led to the discovery of conical refraction, it had also made space for this new passion. “You will perceive from the verses on this sheet that a great revolution in my feelings has taken place since you were here. Having ceased to entertain any hope respecting Curragh,<sup>12</sup> I began soon after I had written my ‘Birthday Eve’ to consider it a point of duty and conscience to exert myself to repel the mental gloom and languor which had too much and often overshadowed me. For this purpose I determined that I would vigilantly and resolutely exclude all voluntary recollection of your sister, and refuse, so far as in me lay, to indulge myself by dwelling on involuntary remembrance. The determination was well fulfilled: and this vigilant and resolute self-denial, combined with ardent and persevering exertion during some months

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corrected this note is! Yours is a much better plan, of making no alterations. They don’t even add to clearness always, although, as you may imagine, it is for that purpose, and not for elegance, that I make them.” [Graves, 1889, p. 329]. And, also to De Morgan: “I am aware that I use *italics* and CAPITALS too freely: perhaps it may be left to the printers to correct that fault, or possibly a reader may bear with it, as being in some degree characteristic, and as indicating a sort of vivacity, if it be too grand a word to say earnestness, on the part of the writer. [Graves, 1889, p. 558]. Realizing that Hamilton explained in his high voice but lectured in his low voice, see footnote 10 on p. 5, it can be imagined that he perhaps thought that writing as if he was speaking would help to convey his intentions to his readers.

<sup>9</sup> [Graves, 1882, p. 622]. They had laughed during the ten-day visit of De Vere in October, see p. 123. Hamilton would mention to have become “a sadder and a wiser man” more often, see p. 102, p. 283 and footnote 42 on p. 283, seemingly striving for this “sadder and wiser” image, which makes laughter almost hollow by definition. And indeed, although he certainly could laugh, p. 326, be playful, p. 81 and p. 201, pull someone’s leg, footnote 115 on p. 155, and do things just for fun, p. 380, he hardly sought laughter for the sake of laughter itself.

<sup>10</sup> [Graves, 1885, p. 2]

<sup>11</sup> See p. 120. The letter was written “not many days after” he had made his feelings known to her.

<sup>12</sup> During the ten-day visit in October Hamilton had not told De Vere about his resolution to refuse to “indulge” himself “by dwelling on involuntary remembrance” of Ellen de Vere, see p. 143.

in abstract science, had its effect in restoring my tone of mind and even my health of body, which had begun to suffer sensibly. The power of hope revived; to which revival in general, and not to any particular prospect of marriage, I alluded in the sonnet beginning 'The Spirit of a Dream'." <sup>13</sup>

### Thinking away depression

The poem 'The Spirit of a Dream', written on the 21<sup>st</sup> of September, thus marked the end of Hamilton's melancholy about Ellen de Vere. <sup>14</sup> The motivation for describing this whole process, which lasted from the beginning of August until late in September 1832, so elaborately in this essay was actually threefold.

First, it can clearly be seen through these letters and poems that Hamilton was not struggling to overcome Catherine, he was struggling to overcome Ellen de Vere, thereby making it clear again that he was not just in love with Catherine his whole life as is often suggested.

Second, in everything he wrote it can also be seen that he had indeed entirely overcome his melancholy about Ellen de Vere, falling in love with Helen Bayly was not "on the rebound". On the contrary, Hamilton wrote explicitly that his "tone of mind and even health of body" were finally restored, and the "power of hope" had revived "not to any particular prospect of marriage;" he fell in love with Helen Bayly after having written the poem 'The Spirit of a Dream' in which he alluded to this general revival.

Third, Hamilton indeed could do what De Vere would describe in 1897, more than thirty years after Hamilton's death; he was able to "think away depression". In his *Recollections* De Vere writes: "I remember his telling me that on one occasion he had escaped from a fit of severe depression by resolutely rising into those regions of what he called "planetary contemplation." But I believe that on that occasion his meditations had belonged to the metaphysical yet more than to the mathematical order." <sup>15</sup>

Hamilton expressed his psychological change in his poems 'My Birthday Eve' and 'Spirit of a Dream'; he became aware of what he was doing and of the risk not to be able to fulfill his boyhood dreams if he would continue to lose himself in his melancholy. And he explained in the letter to De Vere what he had done exactly; how he had drastically pulled himself out of it. He would look back on this change in a letter to De Vere written in 1856, <sup>16</sup> repeating that he did that "by means of a strenuous and continuous exertion of the intellect," by which he will have meant his mathematical work, but it may be added that it was also his intellect with which he succeeded to step outside himself, look at himself to see the consequences of his melancholy musings, and find out what he had to do to finally recover.

Of course, this can be seen as an indication that Hamilton indeed inflicted his unhappiness on himself, or that he perhaps was not actually unhappy; but for people prone to such behaviour, having too much "pathos" as he described it, regardless of why they do that it is no easy task to acknowledge that it is unhealthy behaviour, and such a realization would most likely be a good reason to go and see a therapist. But in Hamilton's days there were no therapists; he had to figure it out himself.

<sup>13</sup> [Graves, 1885, p. 3]

<sup>14</sup> See p. 121.

<sup>15</sup> [De Vere, 1897, p. 48]

<sup>16</sup> See p. 114.



## 5.1 The dawn of a new love

Hamilton continued the letter of the 12<sup>th</sup> of November to De Vere: “And very lately I have begun again to associate Hope with Love, in the case of a person whom I have long known and deeply respected for eminent truth of character.<sup>17</sup> Being aware how quickly in my mind, attachment, when it comes within the sphere of consciousness, gathers round it the aids and influences of imagination, I felt myself induced by our friendship, and bound by our agreement, to apprise you (as I lately did) as soon as I perceived the dawn of a new love.”<sup>18</sup>

Hamilton had often met Helen and her mother Mrs. Bayly, Anne Penelope Grueber (1762-1837), at Scripplestown, the house of his neighbours the Rathbornes. Mrs. Penelope Rathborne (1793-1845) was one of Helen’s sisters, of whom “Helen Bayly was often a guest [...]. Miss Bayly had been thus for some years an acquaintance of Hamilton.”<sup>19</sup> Hamilton liked Mrs. Bayly very much and even had mentioned her in letters to Grace when he was at Adare and Curragh in September 1831: “But what was my astonishment and delight, when [a fellow-traveller] pointed out a distant mountain towering above the nearer hills, and told me it was the Keeper! The Keeper you know is Mrs. Bayly’s mountain; but though I had heard of it from her and from Colonel Colby, I had never presumed to hope that I should see it with my bodily eyes; indeed I am not sure that I distinctly believed it to have any place at all. It was to me a name only, not a local habitation; or if I at all connected it with place, I believe I thought it was near the Giants’ Causeway. My astonishment would have amused Mrs. Bayly. You may tell her of it if you see her.”<sup>20</sup>

Thus being on good terms with his neighbours, on the 20<sup>th</sup> of August 1831 Hamilton had written an invitation to Mrs. Rathborne:<sup>21</sup> “Professor Airy is to dine with

<sup>17</sup> Also of Hamilton it was said that he was extremely truthful, and that he expressed his opinions more openly than other people did, even if it was not always socially convenient, see p. 44.

<sup>18</sup> [Graves, 1885, p. 3]. See for the aid of his imagination also p. 96.

<sup>19</sup> [Graves, 1885, p. 2]. In fact, two of Helen’s sisters were married to two brothers Rathborne; the older sister Penelope was married to William (1787-1857) and lived at Scripplestown, the younger sister Jane (...-1849) and her husband Henry (...-1836) lived at Dunsinea, which was also in the vicinity of the Observatory. It apparently happened more often, that people married members of their in-laws, perhaps knowing that they are from ‘good’ families. Also Catherine was given in marriage to her brother-in-law, see footnote 11 on p. 55.

<sup>20</sup> [Graves, 1882, p. 446]. Although Keeper Hill is about 10 kilometers south of Nenagh, which itself is about 150 kilometers from Dublin, Hamilton had never been there; what nowadays takes at most a few hours, was a real undertaking then. As an example of how hard travelling was: the distance between Dublin and Limerick being about 190 km, in 1827 Hamilton wrote to aunt Mary “Having scarcely more than a day in Dublin, I [...] started on Thursday morning (August 9) in the Limerick coach with Mr. Nimmo [...]. The journey to Limerick, which in the memory of some of our fellow-passengers had occupied more than two days, we performed in one.” [Graves, 1882, p. 251]. Describing, in hindsight, the 1830s, De Vere mentioned this journey to take from “half-past seven in the morning” until “half-past ten at night,” see p. 98, but on the 30<sup>th</sup> of November 1831 Hamilton wrote to Adare, while being in Dublin at his Cousin Arthur’s house, that he would “start in the Limerick coach to-morrow morning” if he could get a seat, to be in Adare “on Friday”. The 1<sup>st</sup> of December 1831 was a Thursday, and arriving on Friday means that it would take at least 24 hours, [Graves, 1882, p. 505], making it likely that Hamilton had to stay in Limerick for the night although the distance between Limerick and Adare is only about 10 km. But Hamilton probably did not mind that much; his journeys often lasted longer than necessary since he preferred travelling by boat, see p. 473. And this preference was not restricted to his younger years; also in 1848 he travelled from Dublin to Portarlington by boat, see p. 275.

<sup>21</sup> [Graves, 1882, p. 443]

me to-morrow, as is also Mr. [William] Larkin<sup>22</sup> [...]. I could not have the conscience to ask you to dine here to meet them, as you might then have rather too much of a good thing, in so many hours of scientific conversation, and would perhaps grow tired of us Professors, a result which I should greatly regret. But as Mr. Airy is a lion,<sup>23</sup> what would you think of coming here to tea, and afterwards letting me show the moon and Jupiter to Mrs. and Miss Bayly, if they will favour my sisters and myself by accompanying you? And perhaps Mr. Rathborne would dine with us at five.<sup>24</sup> My cousin, the Counsellor,<sup>25</sup> will be here, which I know will be some inducement to him." According to Graves, this invitation was the first time Hamilton mentioned "Miss Bayly".<sup>26</sup>

### The Bayly family

Helen Bayly's father, Henry Bayly, had been Rector of Nenagh; he had died in 1826. According to Graves, Mr. and Mrs. Bayly had "many" children of whom Helen was one of the youngest; she was born when her mother was forty-two, and her father forty-eight years of age.<sup>27</sup> According to De Morgan they were descendants of an old family in the south of Ireland, and Graves writes that the head of the family was "settled at Debsborough in the county of Tipperary,<sup>28</sup> [Helen Bayly was] connected with Lord Dunalley [Henry Prittie (1775-1854)] and with Dean [John] Head [(ca 1790-1871)], Dean of Killaloe, who were neighbours in the country, took an interest in the marriage, and were subsequently Hamilton's acquaintances and correspondents. Miss Bayly's mother, who by her letters appears to have possessed a bright mind and amiable disposition, was at this time a widow and resided at Bayly Farm, near Nenagh."<sup>29</sup>

### Present and former loves

Now knowing Hamilton's feelings for her, Helen Bayly was doubtlessly aware of what she could be getting into if she would agree to marry him. Even though she must

<sup>22</sup> William Larkin was a surveyor and produced six county maps in the years shortly before the Irish Ordnance Survey of 1824-1846. His birth and death years seem to be unknown, and in any case hard to find.

<sup>23</sup> An Englishman. This visit was the inducement to Hamilton's "chill" regarding science and the frustration about his fellow scientists, see p. 97, and his subsequent passion for Ellen de Vere.

<sup>24</sup> According to Stellarium Night Sky Viewer, [www.stellarium.org](http://www.stellarium.org), that evening the sun would set around 19h, and half an hour later Jupiter would rise. Logically, tea must have been after dinner, at around 19h. This seems to be in accord with 1780 British customs: Breakfast at 10h, Dinner at 15-17h, Tea at 19h, Supper at 22-23h. See *The food timeline*, [www.foodtimeline.org/foodfaq7.html#mealtimes](http://www.foodtimeline.org/foodfaq7.html#mealtimes) [Accessed 23 May 2015].

<sup>25</sup> That was Cousin Arthur, see p. 28, who was a Barrister-at-Law as can be seen in the 'Table of Relationship', [Graves, 1882, p. xix].

<sup>26</sup> [Graves, 1882, p. 442]

<sup>27</sup> See the website *Ochanov - Goilov - Fiechter - Ferran & Co.*, [www.monchique.com/Ochanoff/ochanov/ochanoff/2634.htm](http://www.monchique.com/Ochanoff/ochanov/ochanoff/2634.htm) [Accessed 12 March 2015]. According to William Edwin they had twenty-three children, [Hamilton Jr, 1895, p. 1].

<sup>28</sup> [De Morgan, 1866]. According to the 'Landed Estates Database' of the NUI Galway University, the Bayly family "were established at Debsborough, Nenagh, county Tipperary from the early 18th century when they obtained fee farm grants from the Duke of Ormonde. Successive generations of John Baylys lived at Debsborough in the 18th and 19th centuries." <http://landedestates.nuigalway.ie:8080/LandedEstates/jsp/family-show.jsp?id=3011> [Accessed 23 Dec 2014].

<sup>29</sup> [Graves, 1885, pp. 1-2]

have liked him, it is easy to understand that she did not immediately accept; Graves writes: "The reader who has followed the troubled course of his affections, and who admires, as it deserves, the noble candour of his nature, will have the satisfaction of noting that in his present wooing he used no concealment as to the past – put on no dishonourable disguise." Indeed, Hamilton had never tried to hide his passions from Helen as can be seen in a poem written on the 6<sup>th</sup> of November 1832,<sup>30</sup>

I have not hid from thee my wanderings  
Through many a cavern lone of joy or grief;  
I have not sought to win thee to belief  
That since the hour, though now with dearest things  
Treasured, when first we met, the restless wings  
Of hope and love have never fled from thee  
Over the surges of a far-off sea,  
But near thee still kept peaceful hoverings.  
No – could I brook that meanness of disguise,  
And mine own soul endure the inward stain,  
Yet could I not insult those trustful eyes  
By daring in their presence so to feign:  
I bring to thee no virgin sacrifice,  
But deeply true: O be it not in vain!

He also never even remotely expected to forget his former loves, and the romantic he was, he clearly also did not want to; in a poem written on the 12<sup>th</sup> of November he defined for the first time his view on the three women in his life, Catherine, Ellen and Helen, as Sweet Piety, Enthusiasm and Truth, respectively, giving each of them her own place in his life:

O be it far from me, and from my heart,  
Praising a new love to dispraise the old,  
As if I had before but false tales told,  
In hasty error, or in flattering art!  
The ancient images shall not depart  
From my soul's temple; the refined gold,  
Well proved, shall there remain, though newer mould  
Of worth and beauty fill another part.  
Sweet Piety, Enthusiasm, Truth,  
A several grace for every several brow,  
Deck three fair Beings; one in earliest youth  
Placed in that fane, one later, and one now:  
But sister-like they twine, in love and sooth,  
And all in each receive my spirit's vow.

Hankins seems to interpret this poem as proof that Helen would never be able to replace "the idealized versions" of the former romances which Hamilton "always retained in his mind,"<sup>31</sup> and that in itself is true, yet it is also clear that she did not

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<sup>30</sup> [Graves, 1885, p. 4]

<sup>31</sup> [Hankins, 1980, p. 115]

have to; Helen already knew that Hamilton did not want to have them replaced, something she would even have to accept if she would agree to marry him. After the poem Hankins states, apparently as a consequence, that Helen knew that Hamilton “married her on the rebound, so to speak, from two previous romances,” but that can certainly not be concluded from the poem; Hamilton had overcome his losses, and writing how next to “the ancient images” “newer mould of worth and beauty” would “fill another part” does not at all sound like ‘marrying on the rebound.’

Hamilton had indeed distinct feelings for and thoughts about the three women, “a several grace for every several brow”, something he would repeat later in life when he referred to himself as their “lover, brother and husband”, while at the same time it is clear from the poem that he placed Helen on an equal footing with Ellen and Catherine. But perhaps most importantly, the fact that Hamilton called Helen “Truth” is deeply meaningful since, next to truth being one of the most important values in his life, truth had, for Hamilton, a strong connotation with science. He never gave any ranking himself; he would always keep his feelings for the three women apart from each other, giving each of them their separate place.<sup>32</sup> Still, in the end he chose Science, and married Helen Bayly.

And he clearly found her attractive; on the 10<sup>th</sup> of November he wrote:

Never before the dark luxuriance  
Of cloud-like tresses rich, o’er snowy brow  
Gently descending, stirred my heart as now  
The meek and spiritual majesty  
Of those dark locks: my fascinated eye  
Almost forgets the loveliness below,  
The varying hues that sweetly come and go,  
And those twin-stars of love and constancy.  
How lovingly the unforbidden Air  
In its embrace enfolds that dark rich cloud,  
And all the labyrinth’d luxuriance there,  
Its soft ethereal arms unseen enshroud;  
While Influences from some far-off sphere  
Hover, in still delight, a mystic crowd!

On the 16<sup>th</sup> of November De Vere reacted: “The description you give of the lady in the [sonnet] is so beautiful that I shall never be satisfied till I see her.”<sup>33</sup>

Hamilton answered on the 26<sup>th</sup>: “As to her beauty, I may unconsciously exaggerate that in my present state of feeling, and I must own that it did not strike me at first nor always, though lately it has much impressed me. But her mind I was pleased with from the first, and after a long continued and long impartial study I do not think it very possible that I should be mistaken there. Spirituality, including but not confined to religion, appeared early and still appears to me to be its characteristic; and though she is not a person of brilliant or highly cultivated intellect, yet I have always found that I converse with her with pleasure, and that my own mind is excited and refined by her society.”<sup>34</sup>

<sup>32</sup> See p. 43, p. 77, p. 145.

<sup>33</sup> [Graves, 1885, pp. 4-5]

<sup>34</sup> [Graves, 1885, p. 6]

### 5.1.1 A most industrious professor

Hamilton was very clear about wanting to have someone at his side to be there forever; he mentioned his “theoretical preference of the married state” in the letter to Eliza after losing Ellen de Vere, and in 1835 he wrote to De Vere: “even for withdrawing into solitary thought, I want a companion from whom to withdraw.”<sup>35</sup> The reason to want a companion seems to have been twofold; as mentioned earlier, he was becoming more and more a solitary worker, and he had described how he needed human love to soothe him in the painful process of retreating from his fellow scientists, thus of becoming ever more lonely scientifically. But also, throughout the biography it can be seen how rejection and being left alone was very hard for him *per se* and these feelings apparently took up a substantial part of his desperations. They seem to have re-emerged when he contemplated that Helen might reject him and that he perhaps would have to prepare himself for a new disappointment; still on the 12<sup>th</sup> of November he wrote a sonnet,

The shrine that now is consecrate to thee  
 Within my heart I will not so profane,  
 As once to fear that coldness or disdain  
 Shall therefore fall with withering power on me,  
 Because I have been tossed upon the sea  
 Of agony before, have loved in vain,  
 And suffered wounds of which the scars remain,  
 And never wholly can effaced be.  
 If I am doomed to buckle on once more  
 Mine armour, and engage that ancient foe,  
 It will not be because the years before  
 Have seen affection's treasures freely flow:  
 Still less because no false white flag I bore,  
 Nor took of virgin love the specious show.

But he quickly picked himself up again and in a letter written on the 17<sup>th</sup> of November Hamilton asked Mrs. Bayly permission to court her daughter, and to his happiness she gave her full consent.<sup>36</sup> Yet, despite his happiness every now and then he suffered from recurring spells of gloom; he worried about them, and on the 21<sup>st</sup> of November he wrote another sonnet,<sup>37</sup>

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<sup>35</sup> See p. 102, p. 179.

<sup>36</sup> [Hankins, 1980, p. 116]. Although this essay is called ‘A Victorian Marriage’, these events took place in the last years of what can be called the Regency period. Officially, this time period corresponds to the regency of the later George IV which lasted from 1811-1820, yet a “notice at the entrance to the Regency galleries in the National Portrait Gallery suggests a wider time span: “As a distinctive period in Britain’s social and cultural life, the Regency spanned the four decades from the start of the French Revolution in 1789 to the passing of Britain’s great Reform Act in 1832.”” Knowles, R. (2012), *Regency History*, [www.regencyhistory.net/2012/09/when-is-regency-era.html](http://www.regencyhistory.net/2012/09/when-is-regency-era.html) [Accessed 10 Jan 2015]. The Hamiltons thus grew up in the Regency period and married just before the start of the Victorian era; it can therefore be said that they were more Regency than Victorian. But since they lived their married life during the Victorian era and were judged by its standards, this marriage is called ‘Victorian’.

<sup>37</sup> [Graves, 1885, p. 8]. As mentioned earlier, having overcome his long-lasting periods of melancholy did not make him a just always happy and cheerful man; he still could have his fears and his anxieties, and his former loves were often vividly remembered.

Forgive me, love, that even in the place  
 Lit by the lustrous atmosphere of thee,  
 A gloom descended for a while on me,  
 And half obscured the light, the joy, the grace,  
 And radiance of thy presence: Fears apace  
 Thickening between, and their dark company  
 So shadowing my heart that heavily  
 Their murky features old I 'gan retrace.  
 Were it not better to have pushed aside  
 Those Fears, nor on their long-known grimness look?  
 What, in the very presence of the bride  
 Whom to itself so late my spirit took!  
 Whether that bridal shall be ratified  
 On earth – can she such desertion brook?

The next day, on the 22<sup>nd</sup>, he was happy again and definitely sounds like being in love; in a letter to Helen's sister Hamilton wrote: "Lord Adare, of all people in the world, popped in on me to-day while I was quietly sitting among my books and papers, and I begged of him to remember what he had seen, and to give me a good *karachthur*,<sup>38</sup> which he promised to do, and was surprised that he had not found me either absent or writing sonnets – for I had sent some of my late sonnets to Lady Dunraven, as she had seen all my former ones. Had he come a few hours earlier indeed – but as it was, he will report that I am a most industrious Professor. I believe, however, he thinks I am growing less accurate than usual, for in talking of the comet, I caught myself calling it, not Biela's, but Bayly's. I hope I shall be more careful when I come to speak of it in my lectures."<sup>39</sup>

That same day Helen, having planned to visit her mother who was ill again, left Scripplestown and went to Dublin "after an interview in which Hamilton mistakenly considered her to yield a complete sanction to his hopes."<sup>40</sup>

### **Happily believing that she would marry him**

On the 24<sup>th</sup> of November Hamilton described, in a letter to Helen which was probably not written for posterity and still believing that she had given her consent, how happy he was that she would marry him: "At last then I may write you, and call you mine! For are you not mine now, in thought, in feeling, by the unuttered vow, by the first kiss of love? ... Doubtless we shall have sufferings, as well as enjoyments, but it is not now that I can realise fear, or think that any bitterness of the future can equal that of the past, or easily persuade myself that any cloud of gloom can soon again overspread me. ... I began to fear that you wished to part forever, and were studying to soften the rejection. The cloud was upon me for a short time indeed, [...] I seemed to see a new array of coming hours of pain, a new succession of secret

<sup>38</sup> This word looks German, but there is no German word 'Karachthur'. Yet there is the Irish word 'carachtar' which means character, or 'caracatúr' which means caricature; perhaps Hamilton used the latter to connote the exaggerated description of a "most industrious Professor." Since Hamilton often copied his own letters in shorthand, this may also have been an error of interpretation.

<sup>39</sup> [Graves, 1885, pp. 10-11]. Hamilton lectured annually on Astronomy, see p. 336.

<sup>40</sup> [Graves, 1885, p. 7]

struggles with grief, the breaking up of a new seal which had imprisoned a new fountain of anguish. ... And soon you rewarded me for all ... by your tacit confession the next evening, when we were again alone together. Then, for the first time, I touched the lips of any but my nearest relatives, and was filled with an unquiet joy and a trouble sweet, and you too were deeply disturbed, and I kissed away the tear from your cheek, and in the moment that we were together I seemed to enjoy a happiness more exquisite but more untroubled than any I before had known.”<sup>41</sup>

Graves does not give this letter but Hankins does, and giving this letter he mentions that it was written on the day after Hamilton spoke with Helen, which would mean that that happened on the 23<sup>rd</sup>. But according to Graves Helen left on the 22<sup>nd</sup>, and although he gives most of the anti-nuptial poems after one another in three blocks of text without comment, he does give dates; the poem ‘The Parting Kiss’, given hereafter, was written on the 22<sup>nd</sup>. It further seems more logical to follow Graves herein since Hamilton wrote in the letter to Helen on the 24<sup>th</sup>, “you rewarded me for all [...] the next evening,” which would be strange if it had been ‘yesterday’, thus on the 23<sup>rd</sup>. And lastly, Hamilton wrote the poem ‘The Lone Valley is Mourning’, also given hereafter, on the 23<sup>rd</sup>; their “parting kiss” will thus have been on the 22<sup>nd</sup>. But that means that the kiss described in the foregoing letter, written on the 24<sup>th</sup> and given by Hankins, is the same kiss as described in the poem ‘The Parting Kiss’, written on the 22<sup>nd</sup>, although the tone is very different.<sup>42</sup>

Yet, describing the same event in different ways is something Hamilton did more often, either adjusting his tone to the person who would read it, or probably choosing to write to the person whom he expected to understand his current emotion best.<sup>43</sup> In this case, Hamilton composed the poem lightheartedly for the public and described their kiss very romantically in his letter to Helen; when he wrote the letter she had left for Dublin already and parting was always very difficult for him.

### Contemplating rejection

In the foregoing letter Hamilton also compared the moment when he thought that Helen “wished to part forever” to earlier moments: “in that time I lived over again the two most bitter moments of my past life; the moment when an expression of Miss De Vere’s brought home to me first a fear with respect to her; the moment when, alone with the mother of Catherine Disney, I heard the words, “She is going from us, she is going to be married.”<sup>44</sup> I remember all the protracted pain of which those words had been the mournful herald.”

From these associations it is clear that if Helen would have rejected him, Hamilton would have suffered as much as when he was rejected earlier; a rejection from her would have been the third “bitter moment”. Learning to cope with her loss would not have been as difficult as it was after losing Catherine; Hamilton explicitly mentioned how that was much harder since he learned so late about her engagement, and that he had been “better disciplined” now. But it would certainly be as difficult as it was after losing Ellen, even though he now had learned not to sink into feelings of gloom for longer periods of time.

<sup>41</sup> [Hankins, 1980, pp. 116-117]

<sup>42</sup> [Graves, 1885, p. 7], p. 136, p. 137

<sup>43</sup> See for instance p. 297.

<sup>44</sup> See p. 54.



If Helen would have rejected him no one would have doubted Hamilton's love for her since it would have spawned new sonnets and writings of pain and distress. But Graves did not publish this letter and consequently, apart from the poems there was no clear indication of Hamilton's love or otherwise intense feelings for Helen before Hankins published it. It thus was entirely possible to believe that Hamilton just married someone in order to be married, as is often suggested in the many short biographical sketches on the internet.

### Victorian concealments

The reason that Graves did not want to publish the letter will have been twofold; next to mentioning Catherine in this letter, Hamilton described their kiss and intense feelings, while marriage was considered holy. Graves published his biography in the 1880s, deep in the Victorian era, and publishing something like this would most likely have been unheard of. But, as mentioned, Graves did give the poem from the 22<sup>nd</sup> of November where the same kiss is described:

#### THE PARTING KISS.

Let the sorrow and the bliss  
Of this warm and parting kiss  
Linger in thy memory  
Amid the scenes of infancy;  
And in many a lovely shade  
Where thy childhood often played,  
Let it bid before thine eyes  
Visions strange and sweet arise:  
And a new diviner bower  
By the magic of this hour,  
Let it weave for thee alone,  
And raise therein a bridal throne,  
Meet for so pure and fair a maiden,  
One with poet's fancies laden,  
One for whom a poet's mind  
A wreath not all unseen hath twined,  
And suffers now the pain and bliss  
Of this warm and parting kiss.  
Sitting on that bridal throne,  
Let an influence unknown,  
Let a wild mysterious gleam  
In thy virgin fancy's dream,  
Fill thee with a trouble sweet;  
And my spirit at thy feet  
Grow visible a moment then:  
And remembrance wake again  
All the sorrow and the bliss  
Of this warm and parting kiss.

As expected, Hamilton found it difficult that Helen was gone; the following day, the 23<sup>rd</sup> of November, he asked himself if his darkness was the reason she left.<sup>45</sup>

THE LONE VALLEY IS MOURNING.

Thou art gone! Thou art gone!  
 The lone valley is mourning  
 A presence withdrawn  
 And a light unreturning;  
 And I dare not approach  
 To that beautiful vale,  
 Lest its sadness reproach,  
 And its loveliness pale:  
 And faintly require  
 Is it I that have driven  
 Away the lost fire  
 From the stars of its heaven?  
 Was it I that compell'd  
 The withdrawn one to flee?  
 Was her lustre repell'd  
 By the darkness of me?  
 Ah, valley! upbraid not  
 One suffering too;  
 Our loved one has made not  
 None mournful but you:  
 Another is grieving  
 For her that is gone,  
 And feels the bereaving  
 Of lustre withdrawn.

## 5.2 Tensed considerations

But then, on the 24<sup>th</sup> of November, apparently after having written the happy letter in which he had assumed that he could call her his already, Hamilton came to understand that he had “mistakenly considered her to yield a complete sanction to his hopes” and had frightened her. Having been on her way to Nenagh she had stayed with a friend in Dublin when she became severely ill<sup>46</sup> and wanted him to stay away.

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<sup>45</sup> [Graves, 1885, p. 10]

<sup>46</sup> [Graves, 1885, p. 7]. It could seem as if she fell ill because of the tensions but of course, she was often ill, which makes it evenly possible that the illness and the proposal, which clearly gave her tension, simply coincided. Graves writes that “for a time she was detained in Dublin at the house of a friend by severe illness, during which the sense of her delicate health added to her natural timidity caused the idea of marriage to become more and more formidable to her.” [Graves, 1885, p. 7]. Graves does not give any letter to corroborate his view on the matter; he calls the foregoing “an outline”, and it is thus unknown whether he read this or this was his own conclusion about her motives. It is known that Graves thought that she was “extremely timid”, yet it can be doubted if he was right about that, see for instance p. 140 and p. 175. But the fact that Graves calls her disease

That was very hard for him,

In the many changing flow  
And ebb of life, of joy and woe,  
Melancholy waves surround me,  
Grief's imprisoning tide hath bound me;  
Me, whose charmed tower so late  
Seem'd to mock the rage of fate,  
And to rise exultingly  
Far above that subject sea:  
As if its rock-foundations laid  
No climbing billows durst invade.  
Not that no forebodings deep  
Murmured through my spirit's sleep;  
Or no mournful phantom gleam  
Troubled my enchanted dream.  
Acquainted all too long with woe,  
At times its coming I could know;  
And catch, like voices of the dead,  
From afar its muffled tread.  
From the high and rock-built tower,  
At times I saw the ocean lour;  
And on its threatening waves appear  
Shapes and auguries of fear.  
But each mournful augury  
Seemed to threaten only me.  
She, I thought, was sheltered far  
From the elemental war;  
From the muffled footsteps heard,  
From the phantoms that appeared,  
From the boding voice – and lo!  
First on her descends the woe;  
And the storm, that was to burst,  
Strikes her gentle head the first.  
Pain and fear have there come down,  
And have fixed a thorny crown;  
And a pillow of unrest  
Is by her throbbing temples pressed:  
Pining for a mother's view,  
Afar by sickness prisoned too.<sup>47</sup>  
And I, I may not soothe her head,  
I may not watch beside her bed;  
I may not kiss away the tear,  
Nor with fond looks, and footsteps near,  
And whispered love, at least express

“severe” instead of being of a “nervous character”, see p. 204, indicates a diagnosable disease, showing that it was, in any case, not just tension.

<sup>47</sup> The reason Helen Bayly had wanted to go to Nenagh was that her mother was ill.

A part of all the tenderness  
 Which cannot all be uttered. Oh,  
 May He who on His children's woe  
 With more than human pitying  
 Looks down, soothe now her suffering;  
 And from His fount of kindness pour  
 Fresh healing streams her bruised heart o'er:  
 And raise her from the bed of pain,  
 To health, and joy, and love again!

Hamilton apparently received his news about Helen from her sister since on the same day, the 24<sup>th</sup>, he wrote to Mrs. Rathborne that he was, according to Hankins, “full of remorse for having caused [Helen] agitation by his own “want of self-control.”” And in letters written on the 28<sup>th</sup> of November and the 3<sup>rd</sup> of December “he could only calm her by saying that he understood her to have given him a profession of love, but not a positive promise of marriage.”<sup>48</sup>

Hamilton had already tried to persuade her in a different way; Graves writes: “When Hamilton heard of Miss Bayly’s illness, and of her consequent misgivings as to their union, [on the 26<sup>th</sup> of November] he addressed to her a letter conveying to her encouraging assurances in reference not only to this point, but to other important considerations which contributed to her diffidence [...]. He [...] assures her that the possibility of her habitual ill-health had been weighed among other possibilities, and had not prevented him from thinking her suited to make him happy, and he continues: – “Our Heavenly Father may have provided this new affliction as a successor to the now finished pain of unreturned affection.”<sup>49</sup> That pain has preyed upon me for almost nine years: a third part of my life. It is over now; and though its shadow may fall on me again, through the power of awakened remembrance, in some moments of future anguish, it can never, I think, descend again with its former intensity of gloom.<sup>50</sup> Doubtless its chastisement has often humbled me, and the scourging has been that of love, of heavenly and paternal love, making human love its instrument. And now, if no new pain succeeded, this old familiar pain being withdrawn, it would be no strange thing if a too great exaltation of joy were to undo, for a while at least, the effect of the former discipline, and the teaching of sorrow be forgotten with sorrow

<sup>48</sup> [Hankins, 1980, p. 117], [Hankins, 1980, p. 415]

<sup>49</sup> In this sentence, but also at other instances in the biography, the use of the word ‘affection’ may sound strange to modern ears, as if it is not really about love, but it must again not be forgotten that this was the start of the Victorian era, moreover, Graves made his choices about what to publish and what not even deep in the Victorian era. According to the website of the Victoria and Albert Museum, “evidence has shown that [...] many [Victorian] couples seem to have enjoyed mutual pleasure in what is now seen as a normal, modern manner. The picture is occluded however by the variety of attitudes that exist at any given time, and by individuals’ undoubted reticence, so that information on actual experience is often inferred from demographic and divorce court records. Throughout, however, the public discussion of sexual matters was characterised by absence of plain speaking, with consequent ignorance, embarrassment and fear.” Marsh, J. (2014), *Sex & Sexuality in the 19th Century*. Victoria and Albert Museum London, [www.vam.ac.uk/content/articles/s/sex-and-sexuality-19th-century](http://www.vam.ac.uk/content/articles/s/sex-and-sexuality-19th-century) [Accessed 01 Nov 2014].

<sup>50</sup> Hamilton was apparently alluding to his having learned how to cope with these feelings. This, and the fact that he refers to his past afflictions without further explanation, is a strong indication that they had talked about his feelings and his experiences. It is entirely possible, as can also be seen in the continuation of this letter, that she understood him better than other people because of her suffered illnesses and weak health, never taking “normal life” as her standard.

itself. But a new sorrow has come, less selfish and perhaps more profitable than the old. Suffering with you who suffer,<sup>51</sup> I may taste more fully than before the consolations by which you are refreshed. And thus chiefly it may be that my hope shall be fulfilled of deriving religious improvement from attachment to a pious wife. For I cannot pretend to be so free from the pride of intellect and of sex as to be likely to listen with profit to direct instruction from a wife, and it never was my hope that I should learn in such a way. But while in the intellectual and theoretical part of religion I cannot easily submit myself as a learner, except to those few whose understandings have been long and deeply disciplined by logic and philosophy, I feel that, in the more vital part which concerns the heart and will, I need much, very much, instruction and improvement and discipline, and am in no way so likely to receive it as through the medium of affection to a pious woman, who is herself under the teaching of the spirit of God, though for that very reason conscious of faults and deficiencies in herself which others do not see. And thus indirectly but powerfully, may you be conducive to my spiritual progress; and not the less for my having to temper the happiness of our recent and mutual confession of attachment with a mournful sympathy in your sufferings of body and mind; since doubtless your mind too must suffer in the present state of your mother's health, while your own health is not such as to allow you to undertake the journey to her.”<sup>52</sup>

There is something remarkable in this letter; Hamilton had said about her that she was spiritual<sup>53</sup>, but in Graves' biography it cannot be seen how he meant that. In this letter he mentioned that she was “under the teaching of the spirit of God, though for that very reason conscious of faults and deficiencies in herself which others do not see,” which could be an indication that she spoke with him about her insecurities. Yet he also wrote about the “consolations by which you are refreshed”, meaning that she was not insecure in the sense of “not being good enough” as a person; perhaps she was, just like him, struggling to remain a ‘good’ human being. And that is what he may have recognized in her, and have called spiritual.

But Graves, always searching for an excuse for Hamilton's, in his eyes, imperfect behaviour in later years, cannot resist laying again a dark veil over this marriage-to-be by adding: “In the conclusion [of this letter] he speaks of her “extreme timidity and delicacy”: a characterisation which was only too fully realised in the future.” This is something Graves does more often in the biography;<sup>54</sup> while writing the biography in hindsight, hint at doom to come, years before events will happen.

Graves does not give this part of Hamilton's letter for his readers to judge, and it thus is not known what Hamilton meant exactly. Yet, it will later be shown that Hamilton did not use the word ‘timid’ in the sense of being an overall shy person,<sup>55</sup> but in the sense of having fear, and that was of course the case; he had frightened her by thinking that she had accepted him already. And it can easily be imagined that indeed her also mentioned delicacy, that is, physically, combined with his growing fame bringing along many “eminent guests”,<sup>56</sup> was an important reason that she had to think seriously and deeply about it.

<sup>51</sup> Perhaps Hamilton was alluding to both Helen and her mother, both being ill at that time.

<sup>52</sup> [Graves, 1885, pp. 11-13]

<sup>53</sup> See p. 132.

<sup>54</sup> See for instance p. 34, p. 80.

<sup>55</sup> See p. 175.

<sup>56</sup> See footnote 14 on p. 6 and p. 175.

### 5.2.1 Occasional interviews

On the 8<sup>th</sup> of December Helen returned to Scripplestown and they met again: “Occasional interviews took place between her and Hamilton during this time, and his hope of her consent was confirmed, although in consequence of her not having arrived at a final decision their intercourse was subjected by her to close restriction.”<sup>57</sup>

During these weeks Hamilton was also working on conical refraction. He discussed it with her since Graves remarks: “This restriction did not prevent his endeavour, as I find from one of his notes, to initiate her into the Science of Optics.” Hamilton did not succeed in explaining it to her, but she must have realized what the social consequences would be when conical refraction would be confirmed and he would become even more famous, since on the 10<sup>th</sup> of December Hamilton “reassured her that he would never force her to go to Court and that they would lead a retired life at the Observatory,” something she had apparently asked for and again insisted upon.<sup>58</sup> And in that way she thus lived up to the image De Vere had described when he wrote about the ideal of a secluded woman; although Helen Bayly was not highly literary or poetical, she had not been “mixed in that universal leveller, society.” She was honest and truthful on an unvictorian level and although it is unknown how much “warmth of feeling” she had, through her truthfulness she perhaps had a “purity of heart” as De Vere had described it. And although she seems to have been “fashionable”, she had hardly adapted to the social norms which would have “fossilised” her.<sup>59</sup>

On the 18<sup>th</sup> she left Scripplestown again to visit her mother, but she promised to give her answer soon after Christmas. Her sisters were worried that Hamilton would change his mind and wrote to their mother “to let her know how matters stood,” yet they had no reason to worry since Hamilton did not at all intend to do that; on the 20<sup>th</sup> of December he wrote:<sup>60</sup>

Ah, if that parting should have been the last,  
That night of beauty! when the Evening Star  
Reveal'd itself in loveliness afar,<sup>61</sup>  
While side by side we stood, and on us cast  
What seem'd a smile, ere yet away it pass'd,  
In its sweet progress heralding the car  
Of Night to lands where other lovers are,  
Happier, but not more true, beyond the vast  
Atlantic! If together never more  
It should be ours upon that Star to gaze,  
Nor, as that eve, together list the lore  
Of Poets old, and up to Heaven raise  
Our hearts together, what a priceless store  
Is hid in those last hours for other days!

<sup>57</sup> [Graves, 1885, p. 14]

<sup>58</sup> See p. 122, [Hankins, 1980, p. 118]. Hankins does not mention when and how she had asked for such a promise. “Court” will have alluded to the upper class circles of the Lord Lieutenant, the representative of the English King or Queen.

<sup>59</sup> See p. 150, p. 152, p. 103. See for a probable reason for asking for a retired life p. 175.

<sup>60</sup> [Hankins, 1980, p. 117], [Graves, 1885, p. 16]

<sup>61</sup> According to Stellarium Night Sky Viewer, [www.stellarium.org](http://www.stellarium.org), that evening after sunset a very bright Venus set in the southwest shortly after six o'clock.

Reading this poem, there seems to have been love and trust and quiet togetherness between them on those “occasional interviews”. Hamilton mentioned that they were not the happiest couple, the romantic he was always being conscious of their mutual sufferings, but from this poem it can be inferred that for both of them truth was the most important value in their life. Indeed, not afraid to say that other couples were “not more true”, it was truth that he found and was certain of in her.

### Laughter returned with a ghastly sound

Yet, coping with her absence was again, and would always be, difficult for him; on the 21<sup>st</sup> of December Hamilton wrote a sonnet<sup>62</sup> which referred to the ten-day visit of De Vere two months earlier, when they had walked along the river Tolka which flows south of the Observatory.

I wandered with a brother of my soul;  
 Familiar loveliness we visited,  
 To me familiar, new to him: I led  
 His steps to where the Tolka's waters roll,  
 Gentle, but by the impotent control  
 Of stony barrier often angered  
 To foam and roar: 'till in the river-bed  
 I reached at last an old remembered goal.  
 It was a place I could not choose but know,  
 All twined with sweet and sad and solemn thought:  
 But of the bitter past we spoke not – no,<sup>63</sup>  
 We might have seem'd with mirthful fancies fraught;  
 For once we laugh'd, laugh'd! but the rocks around  
 Returned that laughter with a ghastly sound.<sup>64</sup>

Apparently, although they had avoided speaking of the “bitter past” during the ten day visit in October, it does not seem to have had a negative influence on their friendship; Hamilton seems to have recognized De Vere's silence as a reaction to his own behaviour as can be concluded from De Vere's following letters.

As mentioned earlier, on the 12<sup>th</sup> of November Hamilton had written to De Vere about the “dawn of a new love”, and that he had discovered how to prevent the long lasting periods of gloom by “vigilantly and resolutely” excluding “all voluntary recollection” of De Vere's sister, which had resulted in the revival of the “power of hope”. On the 16<sup>th</sup> of November De Vere answered: “I cannot tell you how much delighted I am at your letter. You have now again become engaged in a real attachment; and

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<sup>62</sup> [Graves, 1882, p. 620]

<sup>63</sup> It does not seem to be exactly clear which bitter past Hamilton was referring to, Catherine or Ellen, but the fact that Graves remarks that this sonnet was “full of meaning to those who have kept pace with his vicissitudes of inward feeling” makes it plausible that Graves believes that Hamilton was thinking about Ellen de Vere.

<sup>64</sup> Graves had placed this sonnet in the first volume, directly after writing about the ten day visit of De Vere, see p. 123, which means that the reader could not know that Hamilton wrote it while Helen was away. Hamilton was never good at being alone, and even worse at handling the mere thought of rejection, something which still could happen since Helen had not accepted him yet. And Graves was never good at recognizing Hamilton's feelings for Helen Bayly.



once more uniting love and hope I confess I think you a very enviable person. I am still more pleased (as I think you must also be) at this being the result of your own firmness in not allowing your mind to recur to painful subjects. Indeed I concluded from your not speaking to me about the past that you had made a resolution to put it out of your head.”<sup>65</sup>

Towards the end of December Hamilton sent the poem, together with other poems, to De Vere who reacted to it on the 29<sup>th</sup> of December 1832, and he does not sound surprised at all by Hamilton’s description of how their laughter was “returned by the rocks with a ghastly sound” since they avoided “speaking of the bitter past.” “Your sonnets I think beautiful; but am hardly a fair judge as to their comparative merits, as with my usual propensity to “touch what does not belong to me,” I have decided that the first must be about me and our visit to Abbotstown. I am very much delighted and obliged to you for having thus commemorated a scene which, as I anticipated at the time, has an abiding place in my memory and heart. It is one of a few visions that sometimes most unexpectedly rise up in my mind with the vividness and more than the tenderness of reality – our sitting almost silent in the cottage, and then our few words about Wordsworth, and then the wild merriment in the dried-up bed of the river, and “Smoke’s” inebriation with cold water – all these things come upon me now, with much more intensity and total effect than they did at the time. I hope we shall soon renew such scenes; but in the meantime I must beg of you to write to me soon again, telling me everything about your marriage, and not forgetting the biography of your Third Supplement, which I carried all over Dublin by lamplight, while you were showing me the way home.”<sup>66</sup>

De Vere thus simply accepted Hamilton’s mentioning the “ghastly sound” in the poem about his visit; he did not feel offended. It is not clear from Graves’ biography whether he knew that Helen had gone to Nenagh, but it is likely that Hamilton wrote that when he sent him his poems. Knowing Hamilton well by now he then perhaps realized how Hamilton, when he was feeling depressed, could not imagine to really have laughed once, seemingly feeling his feelings of the moment as if he more or less assumed that they had always been like this and would remain to be so forever, something which can often be recognized in Hamilton’s letters.<sup>67</sup>

<sup>65</sup> [Graves, 1885, p. 5]

<sup>66</sup> [Graves, 1885, p. 18]. De Vere writes in his autobiography: “[My sister Ellen] only met [Hamilton] once after he returned from Adare to his labours at the Observatory. I was more fortunate, and frequently visited him there, especially during my undergraduate course in the Dublin University. When each examination was over, I hurried to the Observatory, and soon found the philosopher in his study, or in his garden, laid out by Bishop Brinkley, his predecessor, of whom he always spoke with a filial reverence.” According to Graves, De Vere started university in October 1832, see p. 123, but it is not entirely clear from De Vere’s *Recollections* where he lived and when he finished his Dublin studies; it will not have lasted long though since from April 1834 his letters are again written in Curragh. De Vere continues with a story told to him by Hamilton about meeting Brinkley, for which it must be known that in those days many British convicts were transported to Australia, to penal colonies in Sydney near Botany Bay and Van Diemen’s Land, now Tasmania. “I am afraid I offended [Bishop Brinkley],” he said, “the first time we met. I, then a youth of eighteen, sat next him at some public luncheon. We did not speak, and I felt as if good manners required that I should break the silence. My eye happened to rest on a large map of Van Diemen’s Land, which hung on the wall. I turned to him and said Pray, my lord, were you ever in Botany Bay? The Bishop turned half round to me with a displeased look, and only replied, Eat your soup, sir, eat your soup! He evidently thought I was inquiring whether he had ever been transported. Such a thought had never entered my head.” [De Vere, 1897, pp. 45-46].

<sup>67</sup> See for instance p. 145.

And Hamilton's suffering from fits of gloom does not seem to have been contradictory to his having learned to protect himself against lengthy periods of melancholy as was seen in his letter to Helen of the 26<sup>th</sup> of November: "though [the] shadow [of the pain of unreturned affection] may fall on me again, through the power of awakened remembrance," he trusted that it would never "descend again with its former intensity of gloom." It was not the idea of going to be married soon that made the pain go away; Helen was still very much in doubt when he wrote it, and Hamilton had written that after having understood how to pick himself up his "power of hope" had revived "not to any particular prospect of marriage."<sup>68</sup>

### 5.3 The acceptance

As she had promised, shortly after Christmas 1832 Helen Bayly made her decision; she accepted Hamilton's marriage proposal. The reasons for her doubts or considerations are not given, but next to her weak health, which was discussed earlier, there were of course also his former loves. Helen knew Hamilton well and had read his poems; she most likely will also have read the poems 'The Enthusiast' and 'A Farewell' which were published in 1830.<sup>69</sup> Moreover, Hamilton had mentioned both Catherine's and Ellen's names in the letters of the 24<sup>th</sup> of November; she thus knew all about his deep feelings for them. She had seen his long fits of melancholy in early 1832, but she had also seen his change after that summer. Catherine and Ellen would always be there and she would have to live with that, but she also knew that she was "placed in that fane" with them. Accepting his proposal, it can thus be assumed that in the end she trusted him therein.<sup>70</sup>

Hamilton received Helen's consent through a letter from her mother and could not stay at home "even though [Helen] urged him not to come." Graves writes: "Early in January, his head full of mathematics in connexion with Conical Refraction, he went down to Nenagh to gain the satisfaction of that complete consent which his heart craved and which only a personal assurance could impart." Leaving for Nenagh Hamilton wrote to De Vere in a hasty letter: "As to your doctrine of the degrees of happiness, which seems to be this scale, happy before thinking of marriage, happier after being married, happiest in the time between, I suspend my judgment, like a true inductive philosopher, until I can give an opinion founded on experiment. Meanwhile I must acknowledge myself to be very happy."<sup>71</sup>

#### Lover, brother, husband

On November the 16<sup>th</sup> 1832, hearing of Hamilton's hopes to get married, De Vere had written: "You know better than I can tell you how intensely anxious I shall be until I hear that you are as happy as you deserve to be."<sup>72</sup> Almost as a reply, in

<sup>68</sup> See p. 139, p. 128.

<sup>69</sup> For Helen having read Hamilton's poems see p. 147.

<sup>70</sup> See p. 131. In the meantime Catherine had married but Ellen had not, she would only marry Robert O'Brien in 1835, and that will most likely have been the reason that Hamilton sent to Mrs. Bayly "letters from Aubrey to himself, showing that any possibility of a marriage with Ellen de Vere was quite out of the question." [Hankins, 1980, p. 116].

<sup>71</sup> [Hankins, 1980, p. 118], [Graves, 1885, p. 16], [Graves, 1885, p. 19]

<sup>72</sup> [Graves, 1885, p. 6]

September 1855 Hamilton wrote to De Vere: "I have been as happy in my own marriage as I expected, and more than I deserved to be. My *three loves* have been of *kinds* entirely different, and were felt all along to be so. I do not think that I ever confounded the three feelings, though it might be tedious, and in some degree impertinent, or presumptuous, for me to pretend to analyse them now. In general I might perhaps be permitted to say, to you, that they sometimes suggest themselves to my mind, as having been *characteristically* those of a *lover*, a *brother*, and a *husband*: selecting, you know, what has been eminent in each of them."<sup>73</sup>

The fact that he was so open about this, even thoughtful and calm, is a good indication that he was satisfied then, and perhaps always, with the choices he had made, even if they were restricted by fate. At the same time it is a confirmation of the idea that Hamilton could almost completely separate feelings in different times and places, always feeling the feeling of the moment as the most truthful, thereby seemingly assuming that that feeling would last forever. As can be read throughout the biography, he did that often with unhappy feelings, and that did not change with his new insights which were specifically about the long periods of melancholy. He could still believe that sombre feelings could last forever<sup>74</sup> but, fortunately, he also had consoling ideas which lasted all his life: his reverence for marriage and his conviction that it was "dear and obligatory", something he perhaps said literally only once when he was still young, but which can be recognized even in his troubled times since he acted accordingly throughout his life; his mathematics and his boyhood dream of winning for himself an imperishable name; his metaphysics; his religion and his lifelong struggle to remain humble; his strong attachments to family and friends combined with his fondness of children; his ability to listen to good advice and being consoled by friends; and his love for poetry. And he remained to be able to feel all these feelings, the happy and the sad ones, during his most distressed times, even when they seemed to be contradictory.

Next to the arguments already given in this essay, through Hamilton's steadfastness, and supported by the fact that he always managed to separate his feelings for the three women as belonging to the lover, the brother and the husband, it is highly unlikely that being in pain over losing Catherine has been Hamilton's predominant daily condition during the rest of his life, as is suggested by most of the short biographical sketches after Hankins filled in the gaps in Graves' biography. Hamilton respected marriage as a sacred covenant; if he had seen that Catherine was happily married he most likely would have been happy for her. Seeing her unhappiness must have been very hard for him because he was, as noted earlier, always rather upset when someone dear to him was not well; this applied to all his family and friends, and therefore certainly for his first love since also generally first loves often leave deep impressions, especially if they are lost due to external circumstances.

Hamilton clearly knew what he wanted; in the letter to Helen of the 26<sup>th</sup> of November 1832,<sup>75</sup> he had also written: "How gladly would I, if I were permitted, minister by your sick bed and try to soothe and comfort you [...]. Though I have watched with inexpressible pleasure the rich bloom on your cheeks in moments of health and excitement, you have interested me not less, though in another way, at times when

<sup>73</sup> [Graves, 1889, p. 37]. This is one of the letters to De Vere of 1855, see p. 311.

<sup>74</sup> See for instance p. 401.

<sup>75</sup> See p. 139.

you looked pale and wan. To you, in my habitual conception of you, beauty and bloom are accidents, very pleasant ones no doubt, while they last, but separable with scarce any injury.”<sup>76</sup> From these lines it can be seen how honest he was, how sure of himself and how persuasive, next to being completely immersed in the feelings of the moment.

Still, in that same letter, he did foresee “moments of future anguish”, but he accepted them as a consequence of the course of his life, and trusted that his choice for Helen Bayly would make them less severe. And when, especially in 1848, those moments came indeed, he did not take them as a sign that he had been mistaken; although he would go through very difficult times after meeting Catherine Disney again, in 1848 and 1853, he never expressed regret, not even in the letters read by Hankins which were not given by Graves, about his choice to marry her.<sup>77</sup>

But the best evidence that Hamilton indeed deeply loved Helen Bayly is that he sent his antenuptial poems to Coleridge. On the 3<sup>rd</sup> of February 1833 Hamilton wrote a letter to Coleridge: “I send you some love poems addressed to a lady to whom I am to be married soon.”<sup>78</sup> Combining his high ideas about poetry and his deep conviction that poetry must come from true feelings<sup>79</sup> with his reverence for Coleridge, he must have been very sure about his feelings in these poems. And indeed, even according to Graves he was an attached husband for the rest of his life.<sup>80</sup>

## 5.4 Three months of betrothal

Between Helen’s consent and their wedding Hamilton wrote many long letters to her while Helen wrote fewer short letters. A substantial part of Hamilton’s letters as given by Graves and Hankins will be cited here, giving more insight into their moral views, parts of their character, and Hamilton’s growing fame. Sadly, Hankins gives only some fragments of Helen’s letters, and Graves gives only one fragment.<sup>81</sup>

Having returned from Bayly Farm to the Observatory, Lady Dunraven urged “Hamilton “not to indulge your ladye love in such habits of timidity as to keep her from being introduced to those who love you as the inmates of this house do” and bespeaking from them a visit to Adare Manor.”<sup>82</sup> But on the 19<sup>th</sup> of January Helen wrote an unpublished letter in which she apparently objected to this visit, and

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<sup>76</sup> [Graves, 1885, pp. 11-12]

<sup>77</sup> See p. 139, [Hankins, 1980, p. 126].

<sup>78</sup> [Graves, 1885, p. 37]

<sup>79</sup> See p. 80. In 1855 Hamilton wrote, in a letter to the astronomer John Pringle Nichol Sr., then a new friend, about a sonnet written in Parsonstown, see p. 279: “The former part of that sonnet has happily escaped my recollection, but I know that it was execrable. Certainly I did not intend to flatter Lord Rosse [(1800-1867)], to whom I had the honour of being introduced by his father a great many years before; but there was something of compliment, or at least of politeness, in my mood, at first, which ought not to be, or rather cannot be, the inspiring spirit of any true and genuine poetry. Yet I own that I rather like, on recollection, the last six lines, expressive of an astronomical enthusiasm, including also a feeling for natural beauty, into which my tone gradually deepened, and in which I know that you can sympathise.” [Graves, 1889, p. 46].

<sup>80</sup> See p. 8.

<sup>81</sup> See p. 168. Hankins gives examples of how Helen Bayly addressed Hamilton, as “My dear Mr. Hamilton” or “highly esteemed professor” and gives the dates of her letters, but he does not give the letters themselves.

<sup>82</sup> [Graves, 1885, p. 41]

Hamilton agreed with her, writing to her on the 22<sup>nd</sup> that “it would be foolish in newly married people to go rambling through places which they may never see again, instead of having the first pleasant associations with the home where they are to spend their lives.”<sup>83</sup> It can easily be assumed that she was worrying about his promise to lead a retired life; she will have seen the enthusiasm about his discovery of conical refraction, and had, as mentioned before, very likely expected already that he would become very famous.<sup>84</sup>

She seems to have been insecure about the brevity of her letters since in the same letter Hamilton “tried to reassure her that her brief letters were welcome:” “How can you fear that a letter can be uninteresting to me, when it comes from one to whom I have given my heart, and am soon to give my hand? It is not brilliancy that makes one prize a letter from a friend, and what friend can be dearer or closer than a wife? ... But how unwise it would have been if through any mistaken delicacy you had denied me and may I not say yourself the pleasure and profit of correspondence – profit, for it is now a point of prudence that being engaged to each other we should study each other’s character, and so increase the likelihood of our future happiness.”

She replied on the 24<sup>th</sup> of January, and this is one of the few letters of which something more is given. Hamilton had, apparently, written that he would send her an edition of Shakespeare, but she wrote “not to think” of sending it, “I do not know any place where one is more tempted to spend money in than a booksellers, and I am afraid our small fortune will not [admit] of making indulgences of that kind as well as giving or receiving invitations to dinner parties.”<sup>85</sup> In the other fragment of this letter “she wrote about her “awful situation” and complained of complete loss of appetite, restless nights, bad headaches, a painful hip, and severe heart palpitations.”<sup>86</sup>

Judging from the fragments this letter seems almost brusque; although from the biographies it is not known what she wrote in the rest of the letter, its extreme clearness and truthfulness is undeniable. It is not sure whether this was the kind of truthfulness that Hamilton was alluding to when he mentioned her “eminent truth of character” but it is certainly possible; he had been openly very proud of a “sincere” remark she had made in the summer of 1831; that she liked his sister’s poems better than his. Combining this sincerity or perhaps even bluntness, her truthfulness, her often referred to timidity, or perhaps her insecurity which may have been a side effect of her weak health,<sup>87</sup> Graves mentioning her “ladylike appearance” and Hamilton’s

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<sup>83</sup> [Hankins, 1980, pp. 117-118]

<sup>84</sup> See p. 141.

<sup>85</sup> [Hankins, 1980, p. 119]. The other letter of which something more is given was written in September 1834, see p. 179. Hankins mentioned that she was worried about her “meager dowry”, which is quite understandable, having twenty-two siblings. It was, according to Hankins, “a matter of greater concern to her than to Hamilton.” In December 1832, apparently a few days after Helen Bayly’s acceptance of his marriage proposal, Hamilton tried to comfort her by stating that he “never made fortune in a wife any part of [his] theory of marriage.” But when trying to show that he “would love her without it” he confessed that his income “seemed to have flowed out as fast as it flowed in,” upon which “she was concerned that he took the matter so lightly.” [Hankins, 1980, p. 115]. It must be said that Graves did agree with her on the income issue, see p. 402.

<sup>86</sup> [Hankins, 1980, p. 120]

<sup>87</sup> She was “conscious of faults and deficiencies in herself which others do not see,” see p. 140. It is far from unthinkable that her insecurity was directly linked to her weak health; people with very weak healths can often doubt themselves rather unreasonably, perhaps due to a lack of energy, which is in turn not good for their health. But in those days there were far fewer good diagnoses, there was no psychology, and no proper medication.

use of the word ‘gentle’ in his poem about her illness, “And the storm, that was to burst, Strikes her gentle head the first”, makes the question who she was very intriguing, and it is unfortunate indeed that her letters are not given in full.

### A not unpleasing sadness

Helen Bayly had, as mentioned, a weak health; she had been “dangerously” ill in the summer of 1832, and in November 1832 when in Dublin on her way to Nenagh, considering Hamilton’s proposal, she had been “severely” ill. Next to several severe diseases which were very common in those days, she had, in any case for those days, undefinable symptoms. It can therefore be wondered why Hamilton would want to marry someone with such a weak health, all the more when knowing how he suffered when people around him were ill.<sup>88</sup>

An answer could be that throughout his life Hamilton was working on his “religious improvement”; instead of striving to be free from sorrow and sadness he kept looking for a “solemn and not unpleasing sadness”<sup>89</sup> to become “a sadder and a wiser man”.<sup>90</sup> Working on his “improvement” he used these solemn feelings to remain on his guard, to be aware of too much self-reliance and to stay humble as he had restated in the long letter to Helen of the 26<sup>th</sup> of November 1832; the “chastisement [of pain] has often humbled me [...]. And now, if no new pain succeeded, this old familiar pain being withdrawn, it would be no strange thing if a too great exaltation of joy were to undo, for a while at least, the effect of the former discipline, and the teaching of sorrow be forgotten with sorrow itself.”

This seemingly romantic idea that too much joy could be bad for him may sound mentally unhealthy, as if he was afraid of happiness, yet it cannot be stressed enough that Hamilton lived in times where psychology was not yet developed while at the same time there were enormously strict norms for good behaviour. And he had no mental coach or therapist who are often, as can also be seen nowadays, much needed when someone is so honoured from such a young age; to prevent the youngster from believing that he or she is on the top of the world and can allow him- or herself almost anything. Hamilton was warned often in his youth and that will not have been for nothing; he was deeply convinced of his powers and had extremely high ideas of what he would be able to achieve.

And always able to take good advice to heart, while slowly retreating from his fellow scientists Hamilton must have understood that he could only leave an “imperishable name”, and unfold “the magnificent simplicity of Creation,” if he would also succeed in remaining to be loved by the people who were important to him, especially his wife since he had trouble working when feeling alone, and that was only possible if he would find a way to remain humble. It must have taken much willpower to remain a humble man, even to such an internal degree that people would feel that he was extremely sincere, but there was no other way.<sup>91</sup>

<sup>88</sup> [Graves, 1885, p. 448]

<sup>89</sup> Hamilton named that feeling after losing Ellen de Vere, see p. 101.

<sup>90</sup> See p. 127. For the “religious improvement” see p. 140. Hamilton used the phrase “self-reliance” in one of the extracts of his letters to Catherine in 1848, see p. 271.

<sup>91</sup> An indication for his thoroughness can be found in the remarks by De Vere that he respected everyone, from the peers around him up to “every neighbour, however full of infirmities,” whom he saw as being “invested with all the rights and dignities which belong to humanity,” in a time in which

He succeeded; while being the brightest, the most honoured man for miles around and so enormously convinced of himself and of his powers that in his later years he “knew” that he was “for a future age entirely,”<sup>92</sup> at the same time he was respected and loved by many people. This made his scientific life possible; it allowed him to convince fellow scientists of his ideas no matter how unusual, and he was allowed to study for very many years, hardly without any intervention.

### A Regency view on marriage

On the 26<sup>th</sup> of January 1833 Hamilton wrote a letter to Helen about how happy he was, and it shows how absolutely serious he was about marriage and what it meant to him. “I have been working away at Algebra and Optics, but I cannot go to bed without writing a few lines to you. In many important respects I consider you already as my wife, and experience many of those feelings which Coleridge has described in his poem ‘The Happy Husband’, among the rest “A feeling that upbraids the heart With happiness beyond desert.” Not, of course, that any earthly happiness can be without alloy, but that in having exchanged affections with a person such as you, I have satisfied already one of the deepest instincts and most importunate cravings of my nature, respecting which I said to Aubrey De Vere in February last (having then no hope of succeeding with his sister):<sup>93</sup> “nor do I dare to hope that in me while unmarried the yearning shall ever be stilled for that kind and degree of affection from a wife which I feel that I could give as a husband.” I have begun an intercourse of sympathy under that form which on earth most resembles heaven, because in time it best represents Eternity, that closest form of sympathy, first given to unfallen man, that cleaving of two together, ordained in the beginning by God, that link so firm and holy, that when once knit no rival or higher duty on earth can cut it asunder, but every other duty of earthly love, of friendship and of kindred, becomes subordinate to this; all old and hallowed claims of father and of mother are pronounced to be obscured by its brightness: and owning thus no higher and no equal among men, and ending with death only, even in its outward and visible form, it images mysteriously a more than mortal union, a love that transcends humanity, an incarnation of eternity in time. Well then might wedded love be hailed by Milton as a mysterious law, and be deemed of with a mysterious reverence. And surely from the time that two have made known their hearts, and plighted their promise to each other, they are bound by many of the duties, and may enjoy much of the happiness of marriage. And so I feel with respect to you, married in heart, and passed from the state of a suitor, and filled thereby with deep and tranquil happiness, though longing for the time which is to make you outwardly mine, and to be the beginning of a closer and more complete companionship.”<sup>94</sup>

that was not asked from someone like him.

<sup>92</sup> See p. 57.

<sup>93</sup> Hamilton was clearly never afraid to talk about his former loves; not in his aforementioned poems, and even not in a letter like this one. This could mean that he was much more open at home than is often suggested, as if she did not know much about what was going on in his life. Marriages were clearly very different then from what they are now, having much more of a contract in them; indeed, Hamilton called marriage “dear and obligatory”, see p. 105, but that does apparently not mean that the partners were less intimate.

<sup>94</sup> [Graves, 1885, pp. 19-20]



### A vow of disobedience

In this respect, in February something happened from which some more parts of their moral views can be inferred. In those times the wedding vows for men and women were not the same; the vows for the man were “N. wilt thou have this woman to thy wedded wife, to live together, after Gods ordinance, in the holy estate of Matrimony? Wilt thou love her, comfort her, honour and keep her, in sicknes and in health? and forsakeing all other, keep thee only vnto her so long as ye both shall live?” while the vows for the woman were “N. wilt thou have this man to thy wedded husband to live together after Gods ordinance, in the holy estate of matrimony? Wilt thou obey him, and serve him, love, honour, and keep him, in sickness, and in health, and forsakeing all other, keep thee only vnto him, so long as ye both shall live?”<sup>95</sup> The husband thus had to love, comfort, honour and keep his wife, the wife had to obey, serve, love, honour and keep her husband.

These vows show the noteworthiness of the following letter, written on the 1<sup>st</sup> of February, apparently as a reply to a letter Helen had written since she was at Bayly Farm while Hamilton was talking to her sister and thus was in Dublin, or else he was referring to something she had said earlier, most likely when he was at Nenagh in the beginning of January: “I diverted your sister yesterday by telling her your courageous and candid declaration, that you will never be patient Griselda.”<sup>96</sup> She said she saw you were in fine spirits, and could just imagine that she heard you uttering the vow – of *dis*obedience.” Calling her declaration “courageous” and “candid”, Hamilton clearly sounds proud of her, and her sister’s reply seems to show something more about Helen Bayly’s character, or at least about how her elder sister saw her; the easily inferred sisterly and perhaps proud irony about the “fine spirits” sketches a picture of an angry youngster stamping her feet at such nonsense as patient Griselda. Helen’s “vow of disobedience” and Hamilton’s proud reaction, which is all the more striking if his usual formality is taken into account, can be taken as a sign that they formed a not exactly average couple. It also might again confirm that Hamilton indeed did not have so much a “deep value for law in all things” in the sense of having a love for order itself, than that it made him comfortable. But also, that he did not need this comfortability at home.<sup>97</sup>

Apparently for certainty, Hamilton added that even Chaucer never proposed Griselda as a model: ““No wedded man be so hardie to assaile His wivis pacience, in hope to finde Griseldis, for in certaine he shall faile.” Nor indeed does it seem possible to conceive that it could ever be the duty of a wife to submit with so entire an abstinence from all remonstrance and advice: a wife ought not to be a slave, and I agree with Miss Edgeworth in thinking that a man who could desire to have a wife on such terms would not be worthy to have one at all. I do, then, make up my mind, as you

<sup>95</sup> *The Book of Common Prayer : from The Original Manuscript : attached to the Act of Uniformity of 1662, And now preserved in the House of Lords*. London: Eyre & Spottiswoode. The vows can be found in the chapter ‘The Form of Solemnization of Matrimony’, p. 295. <https://archive.org/details/BookOfCommonPrayer>.

<sup>96</sup> [Graves, 1885, p. 21]. Griselda is the main character of ‘The Clerk’s Tale’, one of the *Canterbury Tales* by Geoffrey Chaucer (1342-1400). The tale tells the story of an extremely patient wife who is, by her husband, being tested for her patience for years, and in a gruesome way. Remaining to be patient despite everything her husband puts her through, in the end everyone is happy, even the atrocious testing husband.

<sup>97</sup> See p. 47.

desired me.” She apparently had, again very directly, asked him to decide what he expected of her as a wife, making it very clear in advance that she would not be patient Griselda.

Approaching Chaucer’s tale from an almost mathematical point of view, Hamilton further contemplated the “ideality of a mentally possible existence” of Griselda and then assured Helen that she could have her own opinions: “Grant that [Griselda’s] trials were such as no human patience could have endured; grant that a balance of the virtues would have forbidden her so submitting: it still remains an interesting contemplation to observe the isolated working of her one predominant and perfect virtue. But I confine this interest to poetry and theory, for in prose and practice I expect to come in often for advice and scolding, and am quite content that we should have more than one will between us; for in all matters within their own sphere I think that women in general, and you in particular, are at least as likely to be in the right as I am: and I hope you don’t suspect me of any fancy for playing Marquis.”<sup>98</sup>

### More a Regency than a Victorian woman

The Hamiltons being born in 1804 and 1805, in their youths women had more freedom of speech than they would have in the Victorian era, although that must not be taken as indicating a large freedom of speech per se. “The 18teens was a time of great freedom for women – freedom in speech and in manners and in movement. Society as a whole was less restrictive in the early 1820s than it was to be for another one hundred years.” The Hamiltons both were in their early twenties already when the attitudes towards women changed: “By the mid 1820s the Ideal of Womanhood had begun. Women were told from all quarters that their job was to stay close to the home and shape the world only through their calm and morally pure influences on the men in their domestic circle. Men were to protect women from a world thought to have grown harsher with the advances of technology. [...] Women laced themselves tighter and tighter as this fifteen-year period progressed and the criticisms about tight lacing were not to be heard until well after 1840.”<sup>99</sup>

Yet, although Helen Bayly seems to have spoken her mind already more freely than other Regency women did<sup>100</sup> which will have made her, like her husband-to-be, even more uncommon in Victorian times, this does not mean that she was in any way emancipated in a modern way; she apparently did not say just anything.<sup>101</sup> And

<sup>98</sup> [Graves, 1885, p. 21]. Griselda’s husband was the Marquis of Saluzzo. It can be seen here that although Hamilton wrote to De Vere that Helen was “not a person of brilliant or highly cultivated intellect,” see p. 132, he surely thought she was smart. Also, comparing this letter, in which he seems to indicate that Helen had a strong mind, to the poem about Ellen in footnote 67 on p. 116, in which he wrote how he wanted to protect her “soft feet” and “young enthusiastic tenderness” from “life’s wilderness”, it becomes easier to see why Hamilton thought of her as a brother and of Helen as a husband: Ellen he wanted to protect, Helen he could trust and lean on.

<sup>99</sup> Palmer, H. (2014), *Women’s Fashions 1825-1840 : The Natural Waist & Large Sleeves*. *Victorian Magazine*. [www.victoriana.com/Fashion/fashionhistory1825-1840.html](http://www.victoriana.com/Fashion/fashionhistory1825-1840.html) [Accessed 15 Jan 2015]. Although this is thus quoted from an American article, American and European Caucasian upper class society seems to have been rather similar then, reading the same books and following the same fashion trends. Emigration rates were high, and many people travelled by boat between Europe and the Americas as did Hamilton’s sister Sydney and son William Edwin in the 1860s.

<sup>100</sup> Helen’s refusal to be Griselda was in 1832, therefore just at the end of the earlier defined Regency period, see footnote 36 on p. 133.

<sup>101</sup> See pp. 381, ff..

it can be assumed that she lived more in her time than her husband did since fashion was changing rapidly, and women had to comply more to the prevailing style than they generally do nowadays; she thus had little choice.

Indeed, it was the "impression" of Mrs. O'Regan, Hamilton's granddaughter-in-law,<sup>102</sup> that Lady Hamilton was "fashionable rather than intellectual." But although she was "not brilliant", that cannot have been a problem for Hamilton; he had been clear about brilliance not being a prerequisite for him when he wrote "It is not brilliancy that makes one prize a letter from a friend."<sup>103</sup> On the other hand, it would be an absurd suggestion that she was really unintelligent; having gained some idea of who Hamilton was it is easy to surmise that in that case he would not have been attracted to her.

That is something which also holds for her interest in his work; it is rather unimaginable that he would have fallen in love with her if she would just have dismissed his work. Indeed, there is some indirect indication that it interested her even if he was unable to really explain it to her; in 1828 while considering a possible love, Louisa, a younger sister of Catherine, Hamilton wrote to Eliza: "If then I said to you that my affection for Louisa would have been deeply weaken'd, had I been sure that the indifference about the Lectures was altogether real, it was not because I expected her to be a mathematician or astronomer, but because a total indifference to this attempt of mine to interest her in my pursuits would have argued (as I thought to me) that total indifference to me (of which I was perhaps too sensitively apprehensive), and which would certainly have weakened my own affection as well as made it unwise to indulge it." Furthermore, he clearly stated: "her mind I was pleased with from the first," and "though she is not a person of brilliant or highly cultivated intellect, yet I have always found that I converse with her with pleasure, and that my own mind is excited and refined by her society." Helen Bayly will thus have been interested, and indeed, in later years she apparently did come, every now and then, to his 'try-out' lectures at the Observatory.<sup>104</sup>

Not having been "brilliant" or literary, it is of course possible that she had more a practical, or even technical,<sup>105</sup> than a poetic mindset, as was said about Grace, Hamilton's eldest sister. Graves writes about Grace: "In literature her mind had not been cultivated as highly as were the minds of her younger sisters, but her practical judgment was sound, and her disposition most amiable." In January 1832 Hamilton had written about her: "My eldest sister has grown quite a diligent observer, and she makes also a good many of the easier reductions herself." And their sister Sydney wrote in 1846, after Grace's death: "She was most like my brother in the universality of her powers, and in her good nature, though no original genius. She was a very good Observer; an excellent Botanist, [...] and in illnesses she was nearly as good as a doctor. [...] In short, she was everything. My brother once said of her, "I think if I

<sup>102</sup> Wayman met Mrs O'Regan in 1965, and she gave him "some written reminiscences of the Hamilton family." She had known "one other Hamilton well, Rev. Archibald Henry Hamilton, Sir William's second son, and was able to pass on orally his memories [and] those of her husband." [Wayman, 1987, pp. 302-304]. See also p. 22.

<sup>103</sup> See p. 147.

<sup>104</sup> [Hankins, 1980, p. 56], p. 132, p. 341

<sup>105</sup> See p. 182, p. 185. Here it is taken into account that it would not fit Hamilton's character to write letters to his wife filled with stories and remarks which would not interest her.

were told that the house was on fire, I should say, well, tell Grace.””<sup>106</sup> Indeed, there exist many good qualities besides brilliancy, and sound minds besides highly cultivated literary ones.

### Good advice

On the 3<sup>rd</sup> of February Helen Bayly apparently wrote a letter again<sup>107</sup> in which she must have complained about her state of mind, or perhaps confessed that she was prone to gloomy fits since, on the 6<sup>th</sup>, Hamilton replied trying to give her good advice from his own recent psychological discoveries, their faith and even from his classical education. “I am greatly concerned to find that you are sometimes in bad spirits and gloomy fits, &c. I’ll not say, “keep up your spirits,” for I know that does not always depend on the will, at least not directly and at once. Yet the will has an influence: there is such a thing as indulging in dejection, and on the other hand a persevering resolution against such indulgence effects much in time. And I may at least urge you to analyse your occasional feelings of gloom, and to try whether they are connected with any cause which I can in any way remove; or whether they arise principally from neglect (perhaps) of exercise and want of variety. Perhaps in part they arise from a reaction which in those who have already suffered<sup>108</sup> will sometimes arise when they find themselves now surrounded with outward happiness and with hopes and prospects of its continuance. Something of the same kind I felt even very lately when I was sitting a few evenings ago in my dining-room with my books and papers about me, and thinking how happy I already was in the most important respects, and how much happier I expected soon to be, when I should have you there by my side. The ancients had much of this feeling, and partly from it they drew their idea of the goddess Nemesis, a mysterious power of whom one function was to chastise the too prosperous among men. To appease this imagined jealousy or envy of some divinity, a king (I think Polycrates of Samos)<sup>109</sup> is reported to have been advised by one of the wise men of Greece to inflict on himself some voluntary suffering. The king accordingly threw into the sea a ring of great cost, and one which he otherwise valued; the ring was the next day presented to him by his cook, who had found it in the stomach of a fish: on hearing which, the wise man withdrew himself from the king’s society, thinking that one whose prosperity had been hitherto so uninterrupted must be destined for some signal and vindictive visitation of adversity. But this is not a Christian feeling. Our God indeed chasteneth those whom he loveth; but not because he grudges them prosperity. Let us commit ourselves to his hands without fear that he will visit us with affliction for its own sake, or because we are happy now.”<sup>110</sup> Nor

<sup>106</sup> [Graves, 1882, p. 520], [Graves, 1885, p. 523]

<sup>107</sup> Hankins mentions a letter from this date but does not give the letter itself.

<sup>108</sup> Either Hamilton was alluding to Helen’s illnesses, or this sentence might be an indication that she, like Hamilton, also had lost someone she loved.

<sup>109</sup> For the story of Polycrates and the fish see pp. 209-210 of Laurent, P.E. (1827), *The Nine Books of the History of Herodotus, Translated from the Text of Gaisford, T.* Oxford: For Henry Slater. <https://archive.org/details/ninebooksofhisto01herdiala>.

<sup>110</sup> Hamilton seems to refer to his conviction of April 1832 that his “unrestrained abandonment” would ‘not unlikely be succeeded’ by “disappointment, struggle and despondence”, see p. 112. That summer having proved this conviction wrong, thereby greatly improving his health, see p. 121, he now seems to have thought that this conviction was even unchristian. And he apparently hoped that she would also be able to profit from his recent insights.

indeed do I at all suppose that you, any more than myself, admit expressly such a fear; but perhaps the involuntary forebodings which at times arise partake of it in their own inner essence, and would be prevented or removed by the Christian feeling, if that were sufficiently strong.”<sup>111</sup>

## 5.5 Growing fame

In the meantime, Hamilton received many reactions to his discovery of conical refraction; he was very proud and it costed him much effort not to become too big for his boots. On the 9<sup>th</sup> of February 1833 he wrote a letter to Helen again, and in this letter it can be seen, next to Hamilton “giving a holiday to [his] modesty,” how in “the summer before last”, that is, the summer of 1831 in which he also had invited “Mrs. and Miss Bayly” to come to the Observatory to see the moon and Jupiter, he already liked Helen enough to have been talking very warmly about her, thereby contradicting Graves’ suggestion that especially, or even only, her illness in 1832 paved the way to more tender feelings.

“You may perhaps remember my telling you that I was so much and so agreeably struck by your sincerity in saying, in the summer before last, that you preferred my sister’s poems to my own, as to mention it to an English lady, Miss Isabella Lawrence, with whom I had for many years been intimate, our intimacy having begun in a similar instance of candour on her part.<sup>112</sup> Perhaps I expressed myself too warmly, for she took it into her head that I was attached to you at the time, which of course was a wild idea, and one that I soon dispelled.<sup>113</sup> On my return from Bayly Farm,<sup>114</sup> I found a letter here from her, in which she offered me the compliments of the new year; and in doing so, she said, “as for worldly blessings, I can scarcely imagine there are any left to wish for you, with one exception only, which I should like you to possess, and find the greatest of all treasures.” I will not tell you what I said in reply but for your sake I will copy her answer, giving a holiday to my modesty, which you will say perhaps that I never keep long on any hard duty, poor creature! Miss Lawrence says, “The contents of your letter have afforded me the sincerest pleasure. I do indeed congratulate you most heartily on the prospect of happiness which is opening for you, and in which I most cordially sympathise. I can scarcely admit a doubt that the lady will know how to value those qualities in you which I place far above those that have justly gained for you worldly distinction, and for whose deficiency no intellectual eminence could compensate.” Really my modesty, little as it is, will not allow me to copy any further, at least from this letter. But as I am in for it, and doomed to be egotistical and so forth at present, I must tell you that Wordsworth, in a letter received to-day, says that my Lecture has given him much pleasure; that it is philosophical, eloquent, and instructive, and makes him regret that he did not study mathematics in his youth. After all I have not had half so much enjoyment from any of the compliments connected with this Lecture, as from “Reviewers Reviewed”,

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<sup>111</sup> [Graves, 1885, p. 23]

<sup>112</sup> See p. 59. She was actually called Miss Arabella Lawrence, see p. 110. Graves seems to have misread her name; he had also mistaken her for the eldest Lawrence sister.

<sup>113</sup> This may sound somewhat unkind, but in those days it was very important that he would not harm her reputation by being in any way unclear about the nature of their friendship.

<sup>114</sup> After the second week of January.

which has been making great hubbub in the little circle of my acquaintance.<sup>115</sup> Lady Dunraven is astonished at the cool impudence of the writer; but Mrs. Hemans says that its unblushing profligacy marks it to be my own. I forget whether you were taken in by it, and really believed it to be an attack made upon me by a stranger. From England I have been receiving many congratulations on my discovery of conical refraction, Professor Lloyd's experimental confirmation of which has just been published. Professor Airy has recanted his heresy against it, as I knew he soon would do [...]. However before I stop my present flight of vanity, let me mention that I received the other day my first Continental present, a memoir printed last year in Turin, and sent me from the author, Plana [(1781-1864)], one of the most distinguished

<sup>115</sup> In January 1833 Hamilton had published an introductory lecture on Astronomy, see for these lectures p. 336. It was widely praised, but these praises "did not remove his consciousness that there was in the style of this production something of a high-flown and rhetorical character, which was certainly open to hostile, it might be to just criticism, and in a playful sense of this he wrote [an] attack upon his own lecture." [Graves, 1885, p. 30]. In January 1852 Hamilton told this story to De Morgan: "[A literary hoax], with which I have to charge my conscience, was played off upon my pupil, Adare, now Dunraven. A very oratorical lecture of mine on Astronomy had just been printed in a certain *Dublin University Review*, which did not long exist. I wrote [an unpublished] Paper called 'Reviewers Reviewed', in which I cut up in the most tremendous, unsparing, and sarcastic style, the said poetical lecture. Then I contrived to have the manuscript left at the house where I knew that Adare at that time was in Dublin, with the family of the lady whom he since married, while I was with a cousin at another house a street off." [Graves, 1885, p. 34]. Graves gives an extract from the paper which takes up three pages in the biography; in this essay only a very small part is given. "*Reviewers Reviewed: or Modern Irish Literature*. The next article is entitled, "An Introductory Lecture on Astronomy, by William R. Hamilton, Royal Astronomer of Ireland: delivered in Trinity College, Dublin, on the 8th of November, 1832." This Introductory Lecture introduces itself with sufficient pomp. The Editor, or Author, takes care to announce that it proceeds from the Royal Astronomer of Ireland: to deter (we suppose) poor anonymous reviewers like ourselves, who have no such sounding titles, and who, if we had, must suppress them, from presuming to criticise a production of so high and mighty a personage." Hereafter follows a sarcastic criticism on the high-flownness and "vagueness of conception" of the lecture. Hamilton ends the paper writing: "He has not taste enough to form a poet or an orator, even if those markets were not already completely overstocked; and as to the pursuits in which one might expect to find him engaged, from the title that he puts so pompously forward, it is clear that his mind is very far indeed from being disciplined to the severity of scientific reasoning. But that we may part friends, and that he may not attribute to any private grudge remarks that have only been called forth by a sense of public duty, we shall offer to him one advice, inspired by the purest motives. Though all the higher walks of science and literature are shut against him, by original malformation of mind, or by bad taste become inveterate, yet in some of the humbler departments he might perhaps be still not wholly useless; and without flattery we think it possible that in time he might be taught some of the lower operations of arithmetic, and might even aspire, after some years, to publish a meteorological journal." [Graves, 1885, pp. 30-33]. Hamilton continued the story in the letter to De Morgan: "Well, no sooner had [Adare] read the Paper than, after perhaps consulting with his friends how to console me, he comes over for that purpose to my cousin's house, and breaks the matter to me with all possible caution and delicacy. Distrusting, or surprised by, the degree of his own success, he exclaimed at last – "Really, Professor, you take this thing very philosophically." "It would be strange if I did otherwise," said I, "since I wrote the article myself." Judge whether we had not a merry evening afterwards." [Graves, 1885, footnote on pp. 34-35]. Hamilton seems to have really liked these kind of jokes; also in January 1852 he wrote to De Morgan: "When a boy I once amused myself by composing (what I could not do now) a Lucianic dialogue, respecting the Rape of Helen, in which I described her tearful irresolution on the Grecian strand, and threw in several pretty incidents, for which I should have found it difficult to assign any other authority than that of the relating sea-nymph. Years afterwards, this dialogue turning up, I had the malice to send it to my poetical friend Aubrey De Vere, without any explanation, and he was delighted to receive the new fragment from the wreck of antiquity, from which it may be judged that his knowledge of Greek prose was not equal to his skill in composing English poetry." [Graves, 1889, p. 333].



mathematicians of Europe, with an inscription “A Monsieur William R. Hamilton, Professeur à l’Observatoire, Dublin.” All this, I know, will give you more pleasure than it does me, though I do not pretend that it gives me none; but I amuse myself sometimes imagining the delight with which you will open hereafter my presents from Europe and America, while I shall put on the Stoic, and tell you that I do not care for such things.<sup>116</sup> To speak honestly, I accept them with pleasure as symbols and auguries of a partial fulfilment of the aspirations expressed in some early lines of mine: “Have friends and country on my thoughts no claim? Knowledge and virtue no ungather’d store? Is it no prize to win Immortal Fame, And leave to mankind’s love a bright unsullied Name?”<sup>117</sup> But however little it may have produced its proper fruits, the desire expressed in my Lecture of attaining perfection for its own sake, and of winning a more than earthly fame, has long mastered, and in great part absorbed, in me the desire of distinction and of reputation however wide or lasting. And though it would be rash to say that I had overcome ambition, [...] I can safely assert that ambition and praise disturb me little now in comparison with their former power. [...] My friend Aubrey often attacks me on my present indifference to fame, but I am sure that I am happier, and I think I am not more idle, since I came to care less about the matter. And even in the outward attainment of reputation I feel pretty sure that after a reasonable time, say ten or twelve years more, if I live so long, I shall not be the less known or talked of in the world for not having tried to force people’s attention in the meanwhile, but left the coquette applause to make the advances to me.”

And in March he wrote to her: “To make amends, I shall put force upon my modesty, and copy an extract sent me by Lord Adare from a recent letter of Herschel. Herschel says, “Pray remember me to Hamilton, and congratulate him on his very remarkable optical discovery of the conical refraction, which strikes me as a most important one, as a predicted result, in the very teeth of all former experience: I mean important to the philosophy of induction.””<sup>118</sup>

## 5.6 How full of silence is deep happiness

Hamilton was happier than he had been in a long time and, as can be read in the foregoing letter, more certain of himself and of his success in achieving his goals than ever, and it can be questioned if and how much his discovery of Helen’s bad spirits and gloomy fits influenced him. In the Regency period the rules for courtship seem to have been very strict: “Once a proposal was accepted and parental consent was obtained, to break off an engagement was considered very grave. An engagement was seen as a contract. A gentleman was strictly forbidden from breaking an engagement once accepted and a lady could only change her mind after careful consideration.”<sup>119</sup> There was no turning back for Hamilton unless, of course, through a trick; he could

<sup>116</sup> From these remarks it can again be seen that she was well aware of his upcoming fame, and that he knew that she was very proud of him.

<sup>117</sup> Indeed, Hamilton was not only looking for an imperishable name for himself, but also for Ireland, see p. 72. Wayman wonders if the greater glory to the College and to Ireland was the reason why the Board of Trinity College appointed Hamilton Andrews Professor and Astronomer Royal at all costs, even to the extent of jeopardizing the Observatory. [Wayman, 1987, p. 57].

<sup>118</sup> [Graves, 1885, pp. 23-26]

<sup>119</sup> Goddard, I. (2014), Courtship and Marriage, <http://isabellegoddard.com/regency-courtship-marriage.html> [Accessed 10 Jan 2015]. For the gloomy fits see p. 153.



just have responded with some polite but unkind or non-understanding remarks, thereby scaring her off at the last moment; as a lady she still could shy away from the marriage.

But he very clearly did nothing like this, he seems not to have been doubtful at all, he tried very hard to comfort her by giving her good advice about how to handle her “bad spirits and gloomy fits.” And indeed, even after he discovered her fits of gloom, in the last section of the chapter before the marriage Graves writes: “This chapter may fitly be concluded by the beautiful sonnet which was the last of his antenuptial poems. It breathes an air of thankfulness for the peace which had descended upon a heart so long troubled with unrest, and which now at last anticipated as near at hand the satisfaction of its yearnings for intimate sympathy and affection.” Hamilton wrote it on the 13<sup>th</sup> of February, a week after his good-advice letter while Helen thus was at Bayly Farm; he was alone again, but he did not have to fear her rejection anymore.<sup>120</sup>

How full of silence is deep Happiness!  
Covering the solemn spirit, like the sky  
Of midnight brooding in tranquillity;  
No Voice presuming feebly to express  
Its all unutterable loveliness,  
Its still communion with the quiet Eye,  
And those clear symbols of eternity,  
Mastering the soul with awe, and rapture's stress.  
So on my spirit there hath fallen a hush  
Of deep and still delight; from Hope and Fear,  
Fountains unseal'd so late, no song-streams gush:  
But all is quiet, 'neath a concave clear  
Of starry night, save one faint eastern blush  
Alone half-telling of a joy not here.

From the peace of this poem Hamilton can easily be depicted while walking in the fields during the dark evenings of February, looking at the “eastern blush” of Scripplestown, the house where he had learned to know Helen, making her the “joy not here”.

It is precisely this peace which was the very first inducement to write this essay; to find out how an unhappy marriage could allow for his Eureka moment while she was present although Eureka moments mostly seem to happen when the discoverer is relaxed; how Hamilton's description of the moments before his discovery of the quaternions could breathe such a peaceful atmosphere while he explicitly mentions that, not knowing where she came from, she was walking along the Royal Canal with him. And why he explicitly mentioned that the first time he wrote down the fundamental equations he did that in the notebook she had given him.

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<sup>120</sup> [Graves, 1885, p. 27]

## Dunsink Observatory and the neighbouring houses



There does not seem to have been anything special in the skies around midnight on the 13<sup>th</sup> of February 1833 which could be described by the “faint eastern blush” Hamilton spoke about in the foregoing poem. But according to the website *Buildings of Ireland: National Inventory of Architectural Heritage*<sup>121</sup> there were three houses in the neighbourhood of the Observatory: Dunsinea, Scribblestown and Scripplestown. According to the webpage *From A Topographical Dictionary of Ireland, 1837; Castleknock, a parish in 1837* Scripplestown was owned by W. Rathborne, Esq., Dunsinea by H. Rathborne, Esq., and Scribblestown by A. Holmes.<sup>122</sup> As can be seen on the map, Dunsinea was located in the south as seen from the Observatory, Scribblestown in the southeast and Scripplestown in the east-southeast. Hamilton often walked in the fields at the south side of the Observatory, between the Observatory and the river Tolka. Scripplestown would then be in the east, and it is very probable that he could see it; the “faint eastern blush” will therefore have been due to the candles and the fireplaces at Scripplestown.<sup>123</sup>

<sup>121</sup> [www.buildingsofireland.ie/cgi-bin/getsearchresults.cgi?county=6](http://www.buildingsofireland.ie/cgi-bin/getsearchresults.cgi?county=6) [Accessed 11 Feb 2015].

<sup>122</sup> [www.libraryireland.com/topog/C/Castleknock-Castleknock-Dublin.php](http://www.libraryireland.com/topog/C/Castleknock-Castleknock-Dublin.php) [Accessed 02 Nov 2015].

<sup>123</sup> Gaslights were only installed later, in any case after 1836: at Dunsinea the Rathbornes had a candle factory, and according to the website *Lalor : Church candles*, “in 1836, following the death of Henry [Rathborne], the factory passed into the hands of John G. Rathborne, a shrewd businessman who guided the [firm] through difficult trading years when Dublin city and its institutions had gaslight installed.” See [www.lalor.ie/history](http://www.lalor.ie/history) [Accessed 19 March 2015]. This John Rathborne was the nephew who would later tell Hamilton about a “new and ingenious” system of contracted multiplication devised by one of his employees, see p. 244, and who would help the Hamiltons financially, see p. 259.

## Chapter 6

# A good marriage

*In the following two chapters Hamilton's marriage and later life are described. But since the main inducement for Graves to write about Lady Hamilton seems to be the need to explain why events in Hamilton's life were not entirely his fault, and he hardly ever mentions something Lady Hamilton said or wrote herself, the description can only be as good as it gets. In this chapter the description of the marriage will end in 1842, to be taken up again, in the next chapter, around 1854. The reasons to choose for this interruption will be explained at the beginning of that chapter.*

Hamilton was excited about his upcoming marriage; on the 2<sup>nd</sup> of April, a week before the wedding, he wrote to Adare: "Even now I can scarcely do more than say that Easter Tuesday, now next Tuesday, continues to be the day fixed. But I fear that I cannot get any confectioner to cut you out an icosihedron or even a dodecahedron slice. [...] I wish you would refresh my memory about the whole matter of our new intended telescope, for I fear I may have forgotten something amid my alternate layers of love and Algebra, as I have lately been busy in both." And in 1835 he still remembered these feelings vividly when he wrote to De Vere: "The other evening I lit upon a two-year-old sonnet of yours [...], which quite surprised as well as delighted me. The delight is easily explained [...], the sonnet is one of your best. As to the surprise, I can only account for that by the post-mark, which testifies that it arrived here just two years ago, when I was within a few days of being married so, if I read it at all at the time, it made no abiding impression then, being neutralised or absorbed at once by a stronger excitement."<sup>1</sup>

Even knowing about Helen's "gloomy fits", her grumbling about money, her illnesses, her making him promise that they would live a retired life at the Observatory, her declaration not to be Griselda, and her desiring him to make up his mind, apparently about his opinions about her role in the marriage,<sup>2</sup> Hamilton still spoke of love. And indeed, he also wrote about her beauty, her piety, her truthfulness, her courage, her gentleness, her spirituality, and about her mind which he was "pleased with from the first," his own mind being "excited and refined by her society."<sup>3</sup>

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<sup>1</sup> [Graves, 1885, p. 42], [Graves, 1885, p. 132]

<sup>2</sup> See p. 139, p. 141, p. 147, p. 150, p. 151, p. 153.

<sup>3</sup> See p. 129, p. 132, p. 138, p. 140, p. 150.

## The wedding

“On the 9th of April, 1833, the marriage of William Rowan Hamilton with Helen Maria Bayly was celebrated in the Parish Church of Ballynaclogh, near Nenagh, by the Very Rev. John Head, Dean of Killaloe, vicar of the Parish.<sup>4</sup> The entry in the Register is signed by Richard Uniacke Bayly [(1806-1888)] of the Parish of Ballynaclogh, and Peter Bayly [(1787-1853)], of the Parish of Dromineer, as witnesses.<sup>5</sup> A half honeymoon was spent quietly at Bayly Farm, and on the 25th of April the wedded pair reached their home at the Observatory, where in almost equal seclusion Hamilton carried on his studies until in the middle of June he proceeded to Cambridge, in company with Lord Adare and Dr. Romney Robinson, to take part in the meeting of the British Association. During the interval he was principally engaged in carrying his Third Supplement through the press, and in extending from Optics to Dynamics his algebraical method of a characteristic function.”<sup>6</sup>

## Veils of darkness

This is Graves’ description of the wedding. But still before informing his readers about it, at the very beginning of the second volume of the biography Graves again lays one of his dark veils over this marriage<sup>7</sup> and thereby sets the stage for Helen Bayly’s later character assassination. Referring to the “dim perspective of possible marriage” Hamilton had written about to De Vere in November 1832, Graves writes: “This dim vision ere long took shape and became a reality; and the present chapter, linking the poems to which the interval gave birth, will furnish a partial but sufficient record of this crisis of his life.”<sup>8</sup>

It does not seem to be entirely clear how Graves uses the word ‘crisis’ here; it can be interpreted as alluding to a crisis in its sense of being filled with danger and doom but that seems rather drastic for a biography,<sup>9</sup> or it can be interpreted as a decisive

<sup>4</sup> Hankins mentions that no friends were invited, but that seems to have been quite normal in the Regency period: “Weddings were mostly private affairs and even fashionable weddings were sparingly attended. They were certainly not the huge affairs that we know today or that became more prevalent during the Victorian era.” Goddard, I. (2014), *Courtship and Marriage*, <http://isabellegoddard.com/regency-courtship-marriage.html> [Accessed 10 Jan 2015]. The Victorian era had only just begun and indeed, Graves does not mention this as being special.

<sup>5</sup> Peter Bayly was apparently one of Helen’s brothers, [www.monchique.com/Ochanoff/ohanov/ochanoff/2643.htm](http://www.monchique.com/Ochanoff/ohanov/ochanoff/2643.htm), and four years after this wedding Richard Uniacke Bayly married Harriet Head (.. -1888), daughter of Very Rev. John Head and Susanna Darby. [www.thepeerage.com/p26888.htm#i268880](http://www.thepeerage.com/p26888.htm#i268880) [Both websites accessed 19 Apr 2015]. It was a family matter indeed.

<sup>6</sup> [Graves, 1885, p. 43]. Apparently, Hamilton started the development of his ‘Hamiltonian Mechanics’ shortly after his marriage.

<sup>7</sup> As mentioned earlier, while writing the biography in hindsight in the 1880s Graves could look back on Hamilton’s entire life and, as he does here, throughout substantial parts of the biography he vaguely predicts that doom is nigh, only hinting at future events and in that way laying veils of darkness over the biography. See p. 140, p. 483. One of the very clear veils is Hamilton’s in his eyes unwise decision to marry Helen Bayly.

<sup>8</sup> See p. 126, [Graves, 1885, p. 1]. Most of these poems are given in the previous chapter.

<sup>9</sup> In a 1886 review of the second volume of Graves’ biography by an unnamed writer, *The Life of Hamilton*, *Science*, VIII (204): 639-640, it is written that “Mr. Graves finds enough in a year of Hamilton’s life for a single sizable chapter, if not for more. So important an event to Hamilton as his marriage is given the prominence it ought to have: in fact, subsequent events justify his biographer in terming it “a crisis of his life”. As might be surmised, the period of his courtship of Miss Bayly was no less a period of his courtship of the Muse; but it was not with Hamilton as it would have been

or a turning point, which it obviously was for Hamilton. But knowing about Graves' condescension for Mrs. Hamilton,<sup>10</sup> it can be assumed that he chose this word deliberately; he simply sounds very harsh and from everything he writes it can be seen how deeply he believed that the fact that she could not "sustain in healthful order and beauty the course of his daily life," as he dreamt that Ellen de Vere could have done, led to everything bad in Hamilton's life and probably even to his early demise.

And as if already preparing his readers to gain an understanding of his reasons to blame Mrs. Hamilton's weaknesses for Hamilton's later troubles, when describing later months in 1833 Graves writes that Mrs. Hamilton's "spirits and her general bodily health were those of one who was never strong, who was often quite an invalid. And thus, with the best intentions, she could not be what Hamilton stood much in need of, a partner able not only to manage well the concerns of a household removed from the conveniences of a town, but also to exercise a controlling influence over the habits of a husband, apt to be so absorbed in his studies that he would generally continue at his work for unreasonably long hours, often even to the neglect of all regular meals."

These remarks seem to have been the onset to the widespread belief that Mrs. Hamilton was a rather lousy housewife, yet the troubles she encountered were acknowledged by her granddaughter-in-law, while Graves' remarks in turn seems to have originated entirely from a story William Edwin told to Tait after his father's death. But Graves' motivation to write about this so extensively was his anxiousness to show what a good man Hamilton was, and that not everything was his fault. If only she could have been stronger, his reputation would not have been so bad.<sup>11</sup>

## Changes

What Graves was alluding to when mentioning the household being "removed from a town" was the fact that living in an Observatory, built for studying the heavenly bodies, also meant living very remote, making running a household extra hard. And Mrs. Hamilton had started on an extremely difficult footing; in March 1833, thus a few weeks before the wedding, Hamilton had written to her that his sisters Grace and Eliza, and Sydney who had joined them later, together with two of the three servants, would be gone at the time they would return to the Observatory after their honeymoon. The third servant also had "given notice, but Hamilton persuaded her to stay until Helen could select a replacement."<sup>12</sup>

with a mere poet, a period devoid of intellectual activity in other directions. His head was full of the mathematics of conical refraction, while his heart craved the satisfaction of that complete consent, long delayed, which he prized above every thing else." <https://babel.hathitrust.org/cgi/pt?id=mdp.39015015749214;seq=703>. The unknown writer does not seem to be too alarmed by Graves' use of the word 'crisis' for the marriage, unless the "subsequent events" were seen as grave and to be blamed on Mrs. Hamilton, as Graves saw it. Just as the biography itself this review was written deep in the Victorian era and may have been full of Victorian concealments next to which, apparently, a woman's reputation could be easily and openly destroyed while trying to save that of her husband. Which was in fact what Graves did.

<sup>10</sup> For Graves' extremely negative opinion about Mrs. Hamilton see p. 483, where in an 1872 correspondence with Ellen de Vere he openly mentions his disdain for her.

<sup>11</sup> See p. 115, [Graves, 1885, p. 61], p. 175, p. 350. In chapter 9 the apparent impossibility to control Hamilton will be discussed, and it will be shown that it really was not all that bad.

<sup>12</sup> [Hankins, 1980, p. 119, 415 note 28]

Although in those days it was customary that after marriage residing sisters left the house to make room for the new wife who would from that time on run the household, Hamilton seems not to have expected his sisters to leave: "it appears that in his simplicity he had thought that his sisters would remain at the Observatory after his marriage, and that he was most unwilling to admit the idea of their departure." And also the sisters must have found it hard to leave the Observatory, they seem to have liked it there which can be recognized in Hamilton's considerations not to accept a professorship in mathematics in 1831; he had written to Robinson that his "only ground for hesitation at all is the regret that I feel in giving up a residence so pleasant for my sisters."<sup>13</sup>

What Grace thought of the new Mrs. Hamilton is not known, but between Sydney and Mrs. Hamilton all seems to have been well. When in 1840 Lady Hamilton fell ill she took over the household, and after Lady Hamilton's return she remained at the Observatory for more than a year. And when Sydney was travelling in the 1860s, she also wrote letters to Lady Hamilton.<sup>14</sup> But Eliza does seem to have had a problem with the new Mrs. Hamilton; according to Hankins Hamilton had thought that she might have been slightly jealous during his former "attachments", but this time she was more clear. She apparently wrote about her misgivings "to Dora Wordsworth, who, on the 17<sup>th</sup> of April 1833, responded: "I suppose you are now no longer an inmate of the Observatory, and I confess we grieve over this very much more if possible for your brother's sake than yours. And I will not offer my congratulations on an event which has made you think it expedient to leave him as I could not do so with sincerity, but I will say that most sincerely do we trust that his fairest hopes may be realized and your affectionate fears prove groundless." "<sup>15</sup>

From Dora Wordsworth's last sentences it might be clear that she felt sorry for Eliza, but was not somehow sure that Hamilton had made a wrong choice. It is of course not clear why Eliza would have felt misgivings for the new Mrs. Hamilton; it may have been due to the close bond with her brother which would now, at least partially, be severed, or because she wanted nothing but the best for her brother, and did not think Helen Bayly was the best. But everything seems to have been solved in the end; the Hamilton sisters later became frequent visitors.<sup>16</sup>

As regards the departure of the servants; they had of course worked more with the sisters than with Hamilton himself.<sup>17</sup> But furthermore, in both Hankins' biography as in Wayman's history of Dunsink Observatory a probable second reason can be seen for their departure: when the Hamiltons arrived at the Observatory in April, according to Hankins two huge pillars "were being erected right through the house to

<sup>13</sup> [Graves, 1885, p. 29], p. 445

<sup>14</sup> See p. 330, [Hankins, 1980, p. 372], [Hankins, 1980, p. 453 note 69].

<sup>15</sup> [Hankins, 1980, p. 115], [Hankins, 1980, p. 414 note 4]

<sup>16</sup> [Hankins, 1980, p. 416 note 59]

<sup>17</sup> Although in 1827 Hamilton wrote to his sister Sydney: "I must tell you of an offer which was made me last night by a servant of Dr. Robinson's, who was driving me home in a gig from a place where I had been dining. He said that he had taken a particular fancy to live with me, and that if I would take him as a servant he would make no stipulation about wages, but be willing to take anything that I was willing to give, and make himself as useful as he could. I have consulted Dr. and Mrs. Robinson, who have told me some faults of his, but who say that he has the great requisites of being sober, honest, and obliging, and that he would probably make me a very good servant. They had not intended to part with him, but are willing to do so; his quarter here will end in October."



support the new equatorial in the dome.” Wayman adds: “Adaptations to the dome structure and its fixtures went on. For on 18 November [1833] WRH wrote that Lord Adare was expected at Dunsink in a day or two, where he would occupy the NE bedroom, above the dining room, instead of the SE bedroom.” And although it is not clear if construction work was going on all through the year, even as late as December 1834 Hamilton wrote to uncle James that he thought about staying at Bayly Farm for another month, “the Observatory being still unfinished.”<sup>18</sup>

Indeed, however important this ongoing construction work was for astronomy, it must have made everything extremely difficult for Mrs. Hamilton, the more when it is realized that she was ill in the summer of 1833 yet Hamilton nevertheless left the Observatory to visit the meeting of the British Association in Cambridge, and in the autumn she was even “alarmingly” ill. And although Graves’ remarks sound as if Mrs. Hamilton almost did not care for the household that was clearly not the case: before the marriage she had had housekeeping lessons from her mother, and when they wanted to visit Bayly Farm in the summer they could not, partly because of the money, and partly because, as Hamilton wrote in a letter to Mrs. Bayly, Mrs. Hamilton had “not yet been able to put her housekeeping on so satisfactory plan, as to make it quite comfortable to her to leave home.”<sup>19</sup>

That, in turn, sounds as if Hamilton actually did not care much, which would be understandable if he kept the interests of astronomy more in mind than those of the household. Indeed, when Mrs. Bayly came to visit in October 1833 because her daughter had been ill, according to Hankins “Hamilton was even more eager to have her come than was Helen, who worried about the chaotic state of the house.”<sup>20</sup> The chaos seems to have been so bad that Mrs. Bayly even had to bring a mattress from Bayly Farm.<sup>21</sup> Yet the state of the house was hardly due to Mrs. Hamilton’s incapacities, as it would appear when the bizarre circumstances of living in an Observatory during remodelling are not taken into account.

Of course, Graves’ earlier remarks were more general than just these early years at the Observatory, and especially in later years Mrs. Hamilton does not seem to have been able to adjust her husband to rules of the household. But just as there were obvious reasons for the “chaotic state of the house,” there were also obvious reasons for her inability to control him; even seemingly straightforward facts in a life are always embedded in the stories of that life.

Reading the biography from this standpoint, behind all Graves’ negativity indications for a good marriage can be found. They almost have to be searched for but, for instance, after giving his aforementioned criticisms Graves writes: “Still she had brought calm to his affections; she won the good opinion of his friends; and she became to him the centre round which the pleasures, the duties, and the hopes of home were gathered.”<sup>22</sup>

[Graves, 1882, p. 250]. It is not clear what happened to this servant.

<sup>18</sup> [Hankins, 1980, p. 119], [Wayman, 1987, p. 159], p. 180

<sup>19</sup> See p. 165, p. 168, [Hankins, 1980, p. 120].

<sup>20</sup> This might sound as if Hamilton wanted Mrs. Bayly to come to reorganize the household but that seems very unlikely; she was asked to come because Mrs. Hamilton had been ill.

<sup>21</sup> [Hankins, 1980, pp. 119-120], [Hankins, 1980, p. 415 note 35]

<sup>22</sup> [Graves, 1885, p. 61]. In chapter 9 the very probable nonexistent possibility of really influencing Hamilton will be discussed.



## 6.1 Early years

Celebrating their honeymoon and still at Bayly Farm, on the 22<sup>nd</sup> of April 1833 Hamilton wrote in a letter to Adare: “[Lady Dunraven] wrote very kindly to me here to repeat her invitation. I am going to answer her to-day, and to express my regret that we cannot go at present to Adare. We have been very quiet here, as we wished to be. ... We have taken some pleasant walks, for there have been some fine summer-like days, and we have beautiful views of the Keeper and other mountains, besides flowers and lambs, and all things pastoral and pretty.<sup>23</sup> I have not, however, confined myself to sentimentalising, but have corresponded with my printers, and been correcting and writing *Algebra*.”

### Meeting of the British Association

Hamilton wanted to attend the third annual meeting of the British Association for the Advancement of Science which was founded in 1831, organizing meetings which lasted for a week. The meeting would start at the end of June 1833 in Cambridge, and Hamilton planned to present his Third Supplement and the discovery of conical

<sup>23</sup> [Graves, 1885, p. 43]. The latter part of this sentence might sound slightly dishonest but it most likely was not; there is abundant evidence that Hamilton deeply loved nature, walking in the fields, being in his garden, see for instance p. 276, and listening to the birds, see for instance p. 107. His love for the garden at the Observatory is mentioned early, in a letter to an aunt in 1824 he wrote “I had a lesson from Dr. and Mrs. Brinkley [his predecessors at the Observatory] on Botany in the garden. I have got some idea of the anthers, pistils, &c.; single and double anemones, *pyrus japonica*, *auriculas*, and many other flowers I saw, and perhaps will remember. I have always derived enjoyment from flowers as one of the beauties of Nature, part of the “goodly garniture of earth” [...]. This is one of the pleasures to which I look forward, if my life shall be prolonged.” [Graves, 1882, p. 156]. This also holds for the Observatory as a place he would often lock himself up in for weeks in order to work; he simply loved it. In 1823, after a visit to Dublin and some months before entering College, he wrote to Cousin Arthur, as if he had some sense, or perhaps hope, that the Observatory would be his future home: “Do not imagine that I am going to write a sentimental journey to Trim on the coach. I set off in good spirits, and had a fine morning. Yet it was not without emotion that I felt myself residing from the spires and mountains of Dublin; and I watched the dome of the Observatory, till I could see it no longer. En passant, I should like to have a house which combined the most perfect domestic privacy with a situation that enabled me to see my home from a distance.” [Graves, 1882, pp. 139-140]. How much he loved the Observatory can also be seen in a memorandum which he wrote after his predecessor Dr. Brinkley had expressed worries about the low income he would receive; that Hamilton should perhaps choose to be a Fellow which would gradually gain him “standing at least, if not income.” Hamilton wrote that “so decidedly did I prefer the Observatory to Fellowship in point of liking, that I would have accepted it if it had been offered to me without money at all,” see p. 65. And during his travels with Nimmo he wrote to his sister Eliza from Keswick, having climbed the mountain Helvellyn, “I wish I could give you some idea of the novel and beautiful spectacle which we witnessed in our ascent [...]. There are some steep precipices near the top of Helvellyn, and the effect at their brink was striking (to me) in the extreme; for the abyss being quite filled with cloud, it seemed as if I could have thrown myself off into that sea of vapour, and sported there, free from all risk of sinking. There was one small valley between two mountains opposite Helvellyn, which I had watched the whole way up, in every varying state of light and shade; – one rill that trickled down it looked so very beautiful that I quite wished to live there by its side (provided I could have brought the Observatory along with me).” [Graves, 1882, p. 262]. Even while being at Adare in 1831 he missed it, “I must go out now while it is fine, and take a walk among these beautiful grounds, which however, after all, I do not prefer to the fields near the Observatory. Whenever I see a very gently swelling distant hill, with trees on its top, I imagine it is the Observatory, and I look for the little iron gate, and sometimes fancy that I see it too, for a moment.” [Graves, 1882, pp. 450-451].

refraction. He had written, a few days before his wedding, to Lloyd about a letter he had sent to William Whewell (1794-1866), Master of Trinity College, Cambridge: "I said that you and many others from Ireland hoped to attend, and that I too was anxious to do so; but that from the sensible perturbations of my orbit, arising from the attraction of Venus, I did not venture to predict with confidence the time of my next passing perihelion."

Hamilton had also contemplated to bring Mrs. Hamilton to the meeting; in the letter to Adare of the 22<sup>nd</sup> of April he had written: "Airy asks me to bring my bride to Cambridge, and to spend the time of the next meeting at his house. This will oblige me to decide in a few days whether I shall attend the meeting or not; for I could not well go at all, if I do not accept this invitation. I am, as you know, very anxious to attend; but I could not well go alone, so soon after my marriage; and I fear that I could not take Mrs. H., or even go alone, without borrowing money, which I do not choose to do."

But he apparently did correspond about his financial difficulties, already announcing that Mrs. Hamilton would not accompany him; in May Whewell wrote from Cambridge: "I am extremely glad to hear that we shall have the pleasure of seeing you here at the Meeting of the British Association. I reckon upon you after the inquiry which you make, for I am not satisfied with myself that you should have such a question to ask. Whenever you arrive you will find a room in College ready for you, and you will have such "provant" as our College may afford as long as you can stay – the longer the better. [...] I somewhat share in the disappointment of Professor and Mrs. Airy that you do not bring Mrs. Hamilton in your hand, that she may see what English savans are like, and that we may have the pleasure of forming her acquaintance. But we shall be very glad to have you by yourself since better may not be." <sup>24</sup>

## Flattery

On the 8<sup>th</sup> of May Wordsworth, next to inviting Hamilton to visit him, commented on the previous meetings of the British Association which were held in York and Oxford: "Could you not take us in your way coming or going to Cambridge? If Mrs. H. accompanies you, we shall be glad to see her also. I hope that in the meeting about to take place in Cambridge there will be less of mutual flattery among the men of Science than appeared in that of the last year in Oxford. Men of Science in England seem inclined to copy their fellows in France, by stepping too much out of their way for titles and baubles of that kind, and for offices of state and political struggles which they would do better to keep out of." <sup>25</sup>

Hamilton indeed went to Cambridge although Mrs. Hamilton was ill when he left, and in his enthusiasm he also did not really seem to remember Wordsworth's hope that there would be "less of mutual flattery." It can certainly be argued that the flattery of Hamilton was justified, yet Hankins comments that due to the "public character and its invitation to lavish display, each city trying to outdo the previous one, the [British] Association was subjected to a constantly increasing flow of ridicule" which continued in any case until 1837. But Hamilton "liked to give speeches and

<sup>24</sup> [Graves, 1885, p. 42], [Graves, 1885, p. 44], [Graves, 1885, p. 47]

<sup>25</sup> [Graves, 1885, pp. 45-46]. Hamilton had not attended the first meeting in York, but he had attended the second one in Oxford. [Graves, 1885, p. 51].

listen to them, and the elaborate social functions of the British Association, which repulsed many members, were exciting for him. He could always be counted on for at least one speech, sometimes more, and usually they were well received." Triggered by Airy and the railway Hamilton had been disillusioned about the course of science, but he had been comforted again in London, realizing that he "could not see without pleasure and deep joy so many vigorous minds among my English fellow-countrymen engaged in researches of Science."

Hamilton's enthusiasm to visit the meetings of the British Association also underpins the idea that although he did not like social gatherings for the sake of socializing itself as was mentioned before, he did like social gatherings and interacting with friends, as he saw quite a few members of his scientific "brother-band", if the conversations would be about science, poetry and metaphysics. And looking at Hamilton's very solitary way of working and the difficulty of visiting other "men of science" in those days, it is indeed easy to see why he liked these weeks so much. He would attend the meetings for the rest of his life and would only skip a meeting if there were very good reasons not to go.<sup>26</sup>

### Sonnet for a wife

In a letter, written from Cambridge on the 29<sup>th</sup> of June,<sup>27</sup> Hamilton told his wife about the good reception of his work: "I have slipped away to my own rooms, to write you a few lines, after this busy and brilliant week of meeting. My last letter was (I think) finished in the Senate House, and hastily sealed with a wafer, on the day before yesterday. That day I dined at Caius College, and was obliged to make a speech after dinner, to return thanks for the Dublin University; and I spent the evening in company with Coleridge, whom I have thus enjoyed the very unexpected pleasure of meeting. The next morning I breakfasted with the Master of Caius College, and afterwards had to resume and finish, in the mathematical section, my account of my optical results. It would have gratified you if you could have seen the attention with which they were listened to, and if you could have heard the high compliments that were paid to me by Herschel, Airy, and others. In the Senate I was obliged to make a kind of speech in seconding a motion, on the same day (yesterday), and in the evening I had to make another, for my health was given at the great dinner which concluded the whole public business of the week. This morning I heard from [Cousin Arthur] that you have not been better since I left you; and I immediately tried to procure a seat in some coach for either to-day or to-morrow: but could get none for any time earlier than Monday morning. I send you a sonnet."

The Synod is dissolved, and void the hall,  
Where lately were assembled bard and sage,  
The fire of youth, the majesty of age,  
And influences from bright eyes, and all  
The congregated power which at the call  
Of Britain's re-awakening Genius came,  
And fed her lamp of truth to fresher flame,  
And in her temple held high festival.

<sup>26</sup> [Hankins, 1980, p. 142], p. 110, p. 105

<sup>27</sup> [Graves, 1885, pp. 49-50]

And, image-crowded, I am wandering now,  
 Alone, beside the unforgotten Cam;  
 Mingling thoughts old and new, remembering how  
 I wander'd once, in pain or Stoic calm,<sup>28</sup>  
 By the same quiet stream, ere yet the vow  
 That gave me Helen gave me peace and balm.

On the 13<sup>th</sup> of July 1833 Hamilton sent this sonnet to De Vere; “It is so long since I have written that I would not now send so short a letter as this must be, if I had not a sonnet to send with it, which may be called in one sense a curiosity, as being written on one’s own wife.”

In this letter he also wrote: “By the way, I picked up at Cambridge, for a few pounds, a polarising apparatus which enables me without any trouble to see some of the fundamental phenomena of crystals in great beauty.” This is slightly amazing knowing that he had trouble, financially, to come to Cambridge, even mentioning this to Whewell, and that in 1841 he had “a net income of less than six hundred a year” making a “couple of pounds” a substantial amount of money. It seems to indicate that Hamilton handled his financial affairs rather badly and indeed, before the marriage he had confessed to his wife-to-be that his income “seemed to have flowed out as fast as it flowed in” upon which she had been “concerned that he took the matter so lightly.” And it seems doubtful that he could submit the bill to Trinity College Dublin, perhaps claiming that the apparatus was needed in connection with his work on optics, since at the end of August he wrote to Adare: “I have made very little use of it for some time past, though I had great entertainment for a while, finding rings in sugar-candy and everything.”<sup>29</sup>

<sup>28</sup> He had been, with Adare, in Cambridge in April 1832, while “not yet fully recovered” from losing Ellen de Vere, [Graves, 1882, p. 552].

<sup>29</sup> [Graves, 1885, p. 52], [Graves, 1842, p. 109], [Graves, 1885, p. 55]. According to the website *MeasuringWorth* in 2014 the relative income value of a, for instance, £2.5 commodity in 1833 would be around £3,900, indeed a substantial amount of money. But Hamilton’s income was of course also substantial; again according to the website *MeasuringWorth* in 2014 the relative economic status value of a £600 income or wealth in 1833 is £945,100, the economic power value of that income or wealth is £2,445,000. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 01 Sep 2015]. It therefore was of course not anything like a low income; to gain some insight into what his income was a comparison to other upper class incomes can be made using a book on costs and incomes, *Early Victorian Times, 1830-1865*, [Young, 1934]. In volume II, the chapter ‘Homes and Habits’ by Mrs. C.S. Peel, §3 ‘Cost of Living’, incomes around 1830 are compared using two other books, *The Cooks Oracle*, <https://archive.org/details/cooksoracleconta00kitc>, and *A New System of Practical Domestic Economy*, <https://archive.org/details/anewsystempract00unkngoog>. In *The Cook’s Oracle* a family income of £320 per year is described; they would have “two maids, and a man, and allowance is made for a dinner-party once a month. [...] The estimates of household expenses given in *A New System* are always planned for a man, his wife, and three children, and those in Part I are describing the households of the poor. In Part II, starting with an income of £150 per annum, the man becomes a gentleman, and when his income rises to £250 per annum, his ‘wife’ becomes his ‘Lady’. On £400 a year the family enjoys the services of two maidservants, one horse, and a groom. On £700 they keep one man, three maidservants and two horses. On £1,000 they blossom out into an establishment of three female servants, a coach-man and footman, a chariot or coach, phaeton or other four-wheeled carriage and a pair of horses. On £5,000 a year the establishment has grown to thirteen male and nine female servants, ten horses, a coach, a curricule and a Tilbury, Chaise or gig.” [Young, 1934, pp. 104-105]. See also [www.victorianlondon.org/houses/homesandhabits.htm](http://www.victorianlondon.org/houses/homesandhabits.htm) [Accessed 30 March 2015]. Of the Hamiltons it is known that they had three servants, see p. 161, which is in accord with the description of an income between £400 and £700. Graves remarks: “[Hamilton] has not only to

“Hamilton’s return from Cambridge at the end of June had been hastened by the illness of his wife: he found her better than he had expected, but in the following September she became alarmingly ill, and so continued for more than a month, and her mother had to be sent for. In one of her letters to her mother she thus writes of her husband: “As Judge Day says, Hamilton would go down to Bayly Farm to bring you up, and I am sure it would give him great pleasure to do so, as his whole happiness seems to be in making others happy; indeed any woman is blessed to be married to such an affectionate kind creature as Hamilton.””<sup>30</sup>

Graves will have published this fragment of Mrs. Hamilton’s letter because it contains a compliment to Hamilton, but he therewith also allows himself to dwell, in a footnote of almost half a page, upon the remarkability of the thus mentioned Judge Day (1746-1841) as a scholar and a person. According to Graves he was a family friend, and since he lived “in the vicinity of Dublin,”<sup>31</sup> with “family friend” Graves will have meant the Hamilton family although it sounds as if also Mrs. Bayly knew who he was. There thus was a family friend, apparently well known and trusted by Mrs. Hamilton despite her supposed extreme timidity, who is not further mentioned in the biography.

The foregoing quote is the only fragment Graves publishes from one of Mrs. Hamilton’s letters, and giving it almost seems friendly. But he cannot help himself; it is immediately followed by the conclusion, mentioned earlier, that she was unfit to be for Hamilton what he needed in a wife, thereby hinting at future troubles which would only start almost ten years later, when she fell ill.

### Graves’ displeasure

The page containing Mrs. Hamilton’s quote is in itself interesting to read; how Graves first gives something positive written by her about her husband, apparently because it throws such a beautiful light on Hamilton’s character and allows him to dwell on that of Judge Day, then he adds to it the warning that she was unfit as a wife for Hamilton, then, obviously aiming at truthfulness, he adds that “she brought calm to his affections” and “won the good opinions of his friends,” followed by the poem ‘To Miss Kate Rathborne’, given hereafter, to which he comments before giving it: “The reader will have felt, however, that he was not a man for whom the past could abruptly cease to be – for whom the deep stream of identity should not continuously flow on. And the following lines are a proof that Hamilton after marriage was the same in the inward life with Hamilton before marriage.”

Graves herewith seems to feel the need to draw the attention of his readers to the fact that even while being married Hamilton vividly remembered his former pain and grief, according to Graves a token of Hamilton’s almost inordinate melancholy disposition, which he believed to have been one of the reasons the things in Hamilton’s life

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support and provide for his family, but to maintain, for the credit of himself, his university, and his country, a hospitality upon which the demands are rendered the greater by his eminent merits and extended reputation.” That included inviting eminent guests, see p. 250, and giving dinner-parties; although Graves does not write about that often, in June 1858 Hamilton gave a dinner-party which was attended by, for instance, John Francis Waller (1810-1894) and Anster, both poets and, with others, founders of the *Dublin University Magazine*, see p. 234.

<sup>30</sup> See p. 147, [Graves, 1885, p. 55], [Graves, 1885, pp. 60-61].

<sup>31</sup> Prior, J. (1837), *The life of Oliver Goldsmith, M.B., from a variety of original sources*. Philadelphia: E. L. Carey & A. Hart, p. 426. <https://archive.org/details/lifeofolivergold00prio>.

happened as they did. Graves had forced himself to be truthful in the biography<sup>32</sup> and he seems determined to uphold that intent; he simply cannot end with something positive with regards to Mrs. Hamilton, his displeasure flushes from the page. But he does not seem conscious of the fact that he thereby drapes his dark veils over the biography, and thus also over Hamilton's remembrance; he just seems eager to show how this intensely good man had only a few weaknesses, and how his melancholy feelings had made him choose this weak woman.

Yet the poem is romantic and honest as always and again an indication that Mrs. Hamilton knew Hamilton's feelings well, all the more when realizing that he sent his poems to many people, thereby not allowing for concealments. In August Kate Rathborne (1819-1900), one of the Dunsinea nieces, had woven a silken purse for him:

TO MISS KATE RATHBORNE.

Thanks for this present from thy gentle hand,  
 Fair Niece of *Her* for whom the silken threads  
 Invisible, by Fancy's fingers twined  
 Beneath the smile and blush of Poesy,  
 And sealed by mystic ring of wedded love,  
 Guard (as this purse some meaner gold might do,  
 If I could so the emblem-gift profane),  
 All the hid treasures of my heart, by grief,  
 From many a gloomy cavern long ago  
 Wrought forth with pain to light, refined and tried,  
 And stamped at length in an enduring mould.  
 But why should grief, though past, blend with a strain  
 Murmured to the young unfolding rose,  
 On whose fresh petals only sunbeams fall,  
 And dews, as yet, of morning and of even?  
 Such simple, sweet, and skyey influence,  
 Of dewy coolness, and of sunny light,  
 And softest breezes passing fragrantly,  
 May yet inspire, fair Niece, a fitting strain,  
 Which shall be sung to thee by other voice,  
 To other lute: mine has but thanks – farewell!

### Illnesses and pregnancy

On the 23<sup>rd</sup> of September Hamilton wrote to De Vere: "Besides mathematical business, which always occupies me more or less, and my having been induced to draw up for the next (quarterly) number of the *Dublin University Review* a sketch of my general method for the paths of light and of the planets, I have lately been kept busy and anxious about the health of Mrs. Hamilton, who has been very far from well, but is recovering."<sup>33</sup> Hamilton was nursing her which was probably rather unusual for husbands in their days and social circles but he apparently was even good at it: on the

<sup>32</sup> See p. 479. This is again an indication that Graves did not recognize Hamilton's psychological change in the summer of 1832.

<sup>33</sup> [Graves, 1885, pp. 63-64]



16<sup>th</sup> of September he proudly wrote to Mrs. Bayly that Mrs. Hamilton had declared that “my darling William is the sweetest nursetender in the world.” She seems to have been very happy with him indeed, and early in October 1833 she wrote to her mother that she was proud of his successes as reported in the newspapers.

Mrs. Bayly, who could only come late in October, apparently suggested that her daughter was pregnant, yet in the aforementioned letter to her mother Mrs. Hamilton wrote: “I am afraid if I am carrying a child at all it is a dead one, for I would have quickened long ago, and there is no sign of life or size whatever, rather the contrary.” The male doctors also did not realize she was pregnant; in a note in Hankins’ biography it is mentioned that Mrs. Hamilton was treated with “shower baths, which were installed at the Observatory, and the raising of a “small blister” on the stomach, which was in a state of inflammation, and calomel.”<sup>34</sup>

<sup>34</sup> [Hankins, 1980, p. 120], [Hankins, 1980, p. 415 note 31]. Since in those days people did not usually have baths at home, precautions had apparently been taken at the Observatory because of Mrs. Hamilton’s weak health. Both shower baths and calomel seem to have been used for cooling in case of fever; in a then famous 1797 book, aiming to prove the good effects of cold baths for patients having dangerous fevers it is written: “In cases where, from local affections or other circumstances, the cold affusion is not judged expedient, milder modes of the application of cold have been adopted. Such as the sponging with water and vinegar [...]; frequent bathing of the hands and face in cold water; dipping the face into cold water [...]. Indeed the salutary effect of calomel [...] may in a great measure be referred to [its] cooling effects; for [this medicine], by opening the bowels, and increasing perspiration, must tend to prevent the accumulation or morbid heat, as well as by removing congestions, on which the febrile heat depends.” Currie, J. (1808), *Medical Reports, on the Effects of Water, Cold and Warm: As a Remedy in Fever and Other Diseases, Whether applied to the Surface of the Body, or used Internally*, Vol. I, Vol. II. From the Fourth London Edition, Corrected and Enlarged. Philadelphia printed: For James Humphreys, and for Benjamin and Thomas Kite, p. 217. <https://archive.org/details/2548021R.nlm.nih.gov>. Between the lines it can be read that in those days using water was not at all as it is today; many people seem to have been afraid of water. Even as late as 1855 persuading people to use water seems to have been very difficult; on the title page of the then also famous Water-Cure Manual, [Shew, 1855], a quote is written: “He that judgeth a matter before hearing it, is not wise.” In the book the fear of water is mentioned; “A great number of persons in this country need water treatment, who will be deprived of going to an establishment unless some cheap one is formed. [...] At home the patient is often annoyed by the fears, importunities, and meddlesomeness of friends. “Water will kill you.” – “You will certainly starve to death.” – “These water doctors kill a great many folks.” – “How bad you are getting to look.” – “Oh, my husband, I dreamed last night that I saw you die, and water killed you; why will you use cold water?”” [Shew, 1855, p. 17]. Yet, even among the “water-doctors” the prevailing conviction was that water had to be used with care as can be seen in the description of the following case: “Mrs. Goss [was] suffering from a severe attack of erysipelas of the face and neck. The heat and swelling had gone on to a very considerable extent before we commenced. We directed that the face and neck should, as far as practicable, be immersed in cold water, and this as frequently as was agreeable. By kneeling at the side of a chair, and having upon it a large bowl of water, the object could be tolerably well effected. At other times, wet cold cloths were to be kept upon the parts. Two general baths per day were to be taken. [After three days] Mrs. Goss was about as usual. Awhile after, a friend of hers had the same disease. She recommended her to have water treatment, as she had done. Her physician, learning what treatment Mrs. Goss had had, said, very confidently, that her constitution was one of hundreds, or she could not have endured it; but the fact is, Mrs. Goss has naturally a feeble frame. The treatment was the safest possible that could be adopted.” [Shew, 1855, p. 205]. Although this is an American book, the situation in Europe was similar, and many people were sent to Germany to be treated through the Water-Cure of Vincent Priessnitz (1799-1851): “There are now very good ships that sail regularly to Hamburg. [...] In Priessnitz’ establishment all expenses for advice, treatment, servants’ fees, &c, amount to about five dollars per week.” [Shew, 1855, p. 16]. Which, according to the website *MeasuringWorth* as a \$5 commodity in 1855 would have a relative income value of \$1,900 in 2014, or about £1,250, making it unavailable for the lower incomes. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 19 Sep 2015]. The fact that people not usually had baths or shower-baths at home, and cures thus were too expensive for most people,



### 6.1.1 Golden opinions

In the beginning of 1834 uncle James wrote to Hamilton: “Your last letter was very gratifying, excepting the account you give of the health of your amiable wife. ... I know really scarcely anyone who seems more universally to have “won golden opinions” from her extensive circle of acquaintance, as letters from, and casual communication with, almost every friend we have testify. Of her present guests and your aunt she has won hearts – and hearts not easily won. I am preparing to yield mine, or rather have done so.”

This letter is puzzling when seen in the light of Mrs. Hamilton’s more than once mentioned “extreme timidity”, leaving the suggestion that ‘seclusion’ also meant being alone often. But having twenty-two siblings, and a new family-in-law whom she invited as might be judged from uncle James’ letter, thereby doubtlessly also making return visits, she knew very many people, giving her an “extensive circle of acquaintance” indeed. Yet, apart from Hamilton’s parents and sisters, Mrs. Bayly, Mrs. Rathborne, Cousin Arthur, aunt Mary, aunt Sydney and uncle James, and later John and Kate Rathborne, two of the Dunsinea children, family members from both the Bayly and the Hamilton families are hardly named in Graves’ biography; they almost have to be searched for.

That holds even more for the Hamilton’s friends. There was, for example, the only once mentioned family friend Judge Day, and there was the unnamed friend in Dublin at whose house Helen Bayly stayed when she had fallen ill on her way to Nenagh in November 1832. And in August 1833 Hamilton mentioned in a letter to Adare: “Helen is quite well, and some of our Trim friends are with us.”<sup>35</sup> Many people, especially people living close by, are mentioned only incidentally or not named at all, yet Hamilton called some of them his “private friends”.

An example is his neighbour William Rathborne, who is mentioned only a few times in Graves’ biography although Hamilton must have seen him very often; in August 1834 Hamilton wrote to Adare: “I was suddenly stirred up to make [a] little speech among the Conservatives, to the extreme surprise of all my private friends,

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led to the aforementioned demand for cheap establishments, which in turn may have led to the commencement of Turkish baths in the 1850s. Victorian Turkish baths are described as “a type of bath in which the bather sweats freely in a room heated by hot dry air (or in a series of two or three such rooms maintained at progressively higher temperatures), usually followed by a cold plunge, a full body wash and massage, and a final period of relaxation in a cooling-room. [...] The first [was] constructed [in] 1856 in Ireland, near Blarney in Co. Cork.” Shifrin, M., *Victorian Turkish Baths: their origin, development, & gradual decline*. [www.victorianturkishbath.org/\\_1introduction/Intro/1WhatEng.htm](http://www.victorianturkishbath.org/_1introduction/Intro/1WhatEng.htm) [Accessed 24 Aug 2015]. As regards the fear of water Hamilton seems to have been an exception, or rather uncle James; from a letter of aunt Sydney to Hamilton’s mother it is known that in 1814 they swam in the river together. In 1817 Hamilton tried to persuade his aunt to let him visit Dublin arguing “that fresh water was not so salutary for bathing as salt water,” and in 1818 he wrote that he bathed every morning. [Graves, 1882, pp. 43, 52, 54], see also p. 28. But even for uncle James this form of bathing was not as habitual as this now may sound; in May 1810, unfortunately the day is not given, aunt Sydney wrote to Hamilton’s mother: “Willy, thank God, is very well. James will not agree to his being bathed till the first of June, as the mornings are still very sharp, and we must submit to the higher powers; indeed we must sometimes submit to the lower ones; for as the first of June falls on a Friday, Rose [Graves remarks: their servant] assures me I had better wait till Monday. Friday is not considered a lucky day to begin anything, so I suppose I must give it up, particularly as I dare say Willy would object to being bathed on Saturday, for he says we should keep both that and Sunday holy, the one being the Jewish and the other the Christian Sabbath.” [Graves, 1882, p. 38].

<sup>35</sup> [Graves, 1885, p. 56]

and of none more than Wm. Rathborne, who could scarcely believe his eyes when he found me at the rooms in Grafton-street. By way of revenge for my invading [the Conservative leader's] territory, he thinks of joining us at Edinburgh [at the annual meeting of the British Association]."<sup>36</sup>

Also, according to Graves, in 1819 while staying with his father for two months, Hamilton had "cemented" a permanent friendship with the Brady family, Dorothea Brady most likely having been Hamilton's first youthful love. Yet the name Brady is only mentioned twice in the biography: once when Nicholas Brady, the eldest brother of Dorothea, was knighted in 1822, and once in March 1825 when next to Hamilton, who then received a premium in the Catechetical Examinations, Francis Brady, another brother of Dorothea, and James Disney, one of Catherine's brothers, received a premium "in their own divisions."<sup>37</sup>

There are known correspondences, such as Hamilton's correspondences with Dean Head and Lord Dunalley, which are not given at all, and when in 1841 Graves wrote an article about Hamilton, in which he described the 'normal' course of events at the Observatory, he remarked that the Observatory attracted "not only the scientific stranger, but numbers from a wide circle." But also these visits are hardly described in the biography. The Hamiltons thus visited and received visitors at the Observatory on a far more regular basis than they seem to have done when reading the biography superficially. One of the reasons for this difference will be that the biography largely consists of letters and therefore, if Hamilton did not mention people, for instance because they were living in the neighbourhood and thus were no correspondents, or they visited Mrs. Hamilton while Hamilton was working, it is not even known they were there. And Graves could not avoid having a profound influence on the biography himself. He had to make choices about what to publish and what not, since Hamilton wrote an enormous amount of letters and notes; Graves remarks in the preface to the first volume of the biography that "one would think from his manuscript-books that he lived with the pen always in his hand."<sup>38</sup>

Another kind of influence can be seen when Graves starts the description of the year 1849 with: "there is not much to record." Perhaps Hamilton did not write much indeed, but in May that year two nieces from Scripplestown, living in Athlone, suddenly died; "The Islander – Jun 29, 1849. Died. On the 20th May, at Athlone, Ireland, after only five hours illness, Isabella Sophia, the beloved and affectionate wife of Major Longworth, 31st Regt. in her 23d year; and on the following day, of the same disease, at the same place, Emily Adelaide Rathborne, sister of Mrs. Longworth, in her 19th year, third daughter of William Rathborne, Esq., of Scripplestown House,

<sup>36</sup> [Graves, 1885, p. 101]. That year Hamilton had joined the Conservative Party and Graves mentioned that "Ireland was at that time in a very disturbed condition, and no little alarm was excited among the adherents of the Constitution by the agitation of O'Connell for the Repeal of the Union. Hamilton was by no means a political partisan. This was proved by his having in 1832 professed himself a Reformer [as he also mentioned earlier, in an 1831 letter to Wordsworth, see [Graves, 1882, p. 478]], because convinced that a change in the parliamentary representation of the country was necessary. [This change was established by the Irish Reform Act of 1832.] On [other] grounds, however, he was in principle and by habits of thought Conservative [...] though he was always to be ranked among the moderates. And he fulfilled the expectation [...] that he would not allow politics to interfere injuriously with his duties to Science." [Graves, 1885, p. 100]. Hamilton's political views are discussed by Hankins on [Hankins, 1980, p. 213 ff.].

<sup>37</sup> See p. 33, [Graves, 1882, p. 99], [Graves, 1882, p. 179].

<sup>38</sup> See p. 130, p. 210, [Graves, 1882, p. vii].

County of Dublin, Dublin, both deeply lamented by a large number of relatives and friends.”<sup>39</sup> That must have been a terrible blow, and although their mother, Mrs. Penelope Rathborne, had already passed away in 1845, their father William Rathborne still lived at Scripplestown. Even if in Hamilton’s days people dealt with death differently than is usual nowadays, it still must have had an enormous impact on the family. But Hamilton likely did not correspond with William Rathborne being his neighbour, and thus it is not mentioned.

### Timidness and shyness

It is a pity that Graves did not give letters written by Mrs. Hamilton herself; Hankins mentions that “as their wedding approached, their correspondence took on a teasing and affectionate manner,” which would mean that that should be recognizable in her letters, and therewith probably a means of defending her against the just-timid-and-shy image which exists of her. And if Graves would have given letters from friends or family members who knew her well, they would probably have given a better idea of how she was regarded by the people around her. But instead of showing some parts of her active social life, Mrs. Hamilton’s “timidness” is so emphasized in Graves’ biography that it even diverts the attention away from it.

One way to combine the apparent contradiction between Mrs. Hamilton’s supposed timidness and her active social life can be found in a remark made by Graves while describing the months that she was considering Hamilton’s marriage proposal; he then mentions that she “acknowledged esteem and sisterly affection, but shrunk in extreme timidity from anything beyond,” which allows for the idea that she felt at ease with family, but not with strangers. Another possibility can be found in a description Hankins gives when, in October 1833, Lord Adare came to visit the Observatory. Mrs. Hamilton “wanted to have one of the servants from Bayly Farm come to supplement the observatory staff. She also hoped that he would bring the Bayly livery; it was something that she would “like the people here to see.” This particular servant possessed a dignity that amused Hamilton. He had gone out of his way at Bayly Farm to impress upon Hamilton the “grandeur” of the Bayly Family and its “extensive connexions and possessions;” Mrs. Hamilton thus was “concerned with position” as Hankins expresses it.<sup>40</sup>

Still, Hamilton was amused, he did not laugh at him. After he was knighted in 1835 De Vere wrote to him: “I know you well enough to be aware that I ought rather to congratulate your friends and the University than yourself upon your bearing the title,” since Hamilton hardly cared for it other than that it was bestowed upon him by his monarch. Hamilton, like Mrs. Hamilton, belonged to the gentry, as did for

<sup>39</sup> *The Islander or Prince Edward Weekly Intelligencer and Advertiser* - Deaths 1842-1860. Transcribed by R.J. Reid. [www.islandregister.com/rjreiddeaths.html](http://www.islandregister.com/rjreiddeaths.html) [Accessed 15 March 2015]. According to the website *The Wild Geese : Exploring the heritage of the Irish worldwide* there had been a cholera outbreak in Athlone: “The Cholera. We regret to say that within the last week this terrible pestilence has assumed a rather virulent form in this town, the total number of cases in the town up to this day were 63: Deaths 34, remained under treatment 29. In the workhouse from the 16th to this day, there were 102 cases: Recoveries 25, convalescent 14, deaths 30, remaining under treatment 39 (20 women, 6 girls, 5 men and 8 boys). The Master of the Workhouse died of the disease this day. The Athlone Sentinel, May 23rd, 1849.” <http://thewildgeese.irish/profiles/blogs/cholera-in-athlone-may-23-1849> [Accessed 19 March 2015].

<sup>40</sup> See p. 383, [Graves, 1885, p. 7], [Hankins, 1980, p. 118], [Hankins, 1980, p. 119].

instance the Graves brothers, the De Veres, Wordsworth, the Rathbornes and the Disneys, and combining this with Hamilton's courtliness towards people who out-ranked him makes it easy to imagine that Hamilton was amused at the thought that the servant tried to impress him just because of his reputation, rather than that he would be laughing at people for acting obsequious.

It was customary then to socialize within one's own circles, and in order to further defend Mrs. Hamilton it can be remarked that, even if to modern eyes her anxiousness might seem a bit overdone, it must not be forgotten that Hamilton, who was by then absolutely famous, had befriended the highest upper class of Ireland, visiting for instance Adare's parents, the Earl and Countess of Dunraven.<sup>41</sup> Thereby taking into account that even Hamilton had trouble calling Adare by his name instead of using his title although he gave good reasons for it, it can easily be inferred that she was impressed, and therefore perhaps anxious, when these people visited the Observatory; her anxiety was not so unusual as it would seem nowadays. Mrs. Hamilton may therefore have been particularly timid in the presence of people of the higher social classes, or of men and scientists Hamilton spoke highly of, while she could easily interact with people of her family or of her own class, and with people she knew well.

But next to being impressed by higher ranked people, her anxieties might also have been directly linked to her weak health. She fell ill in Dublin while on her way to her mother in 1832, and she may have known that she would always feel vulnerable during the long and in those days tiring journeys. That could make it intelligible why, if she had such an "extensive circle of acquaintance," she nonetheless asked for a retired life at the Observatory, where "retiredness" apparently did not mean refusing to visit family and friends, including Hamilton's "private friends" who lived in the neighbourhood; even according to Graves "she won the good opinion of his friends."

As regards Mrs. Hamilton's alleged shyness it can be remarked that although Graves uses the word 'shy' for Mrs. Hamilton only a few times, when he does use it it sounds premonitory; he even adds "her shyness" to her name in the index of the third volume of his biography. But in the biography Hamilton used the word 'shy' in connection to his wife only twice: once in 1838 in connection with a visit to Castle Ashby when he wrote to Cousin Arthur that every possible attention was paid to Lady Hamilton "to prevent her from feeling shy," and once when in 1853 he wrote to De Morgan about having persuaded her to come with him to meet the Queen, "though she is very shy about going out."<sup>42</sup>

This use of the word 'shy' seems different from what it seems to mean in Graves' biography, as if she was shy in the sense of a character trait; this indeed sounds like an anxiety to make visits to the upper class. Being a "retired woman" will thus not have meant wanting to be alone due to timidity and shyness; it will have meant not wanting to attend dinners and balls, or making extended visits to people outside the family and far away, that is, not socializing Victorian upper class style. And since Hamilton thus only used the word 'shy' in connection with upper class visits, the connotation of timidity and shyness as closely combined character traits seems to be entirely Graves' interpretation instead of that of Hamilton.

<sup>41</sup> The titles in the Irish Peerage are: Duke, Marquess, Earl, Viscount and Baron. Helen Bayly's great-great-grandmother was Elizabeth Prittie, [www.monchique.com/Ochanoff/ohanov/ochanoff/2663.htm](http://www.monchique.com/Ochanoff/ohanov/ochanoff/2663.htm) [Accessed 17 March 2015], family of Henry Prittie, the first Baron Dunalley.

<sup>42</sup> See p. 171, p. 163, p. 388, p. 216.

### Perhaps not so timid after all

Mrs. Hamilton's "extreme timidity" may have had yet another practical reason, but this reason is not mentioned in Graves' biography, probably because people in those days were familiar with it. Mrs. O'Regan, the Hamiltons' granddaughter-in-law, mentioned that Mrs. Hamilton had "complained bitterly about the amount of problems the servants of Mr De Vere gave to her servants whenever they came."<sup>43</sup> But this means that where Graves writes about visits and draws, especially in De Vere's case, an image of two friends having a good time together, those friends did not come alone; they brought servants or staff with them.

That, of course, again shifts the idea of how it must have been for Mrs. Hamilton; for her Hamilton's visitors brought with them a lot of work and organizing. It can be argued that that was her role in the marriage,<sup>44</sup> but for someone who is often ill that can easily be imagined to have been very stressful. Furthermore, it is also likely that with people the higher in the upper classes the more servants came along, giving Mrs. Hamilton a reason not to be very happy with Hamilton's continuously-higher-class friends. Instead of having been motivated to ask Hamilton to promise her a retired life at the Observatory by her "natural" and "extreme timidity" as Graves suggests,<sup>45</sup> it may simply have meant that she was well aware of the fact that she would not be able to handle a less retired life because of her frequent illnesses or out of a usual lack of energy; Hamilton did write that she often looked "pale and wan".

It is therefore easy to imagine that, had Hamilton not promised her such a retired life, she would have rejected his marriage proposal; she then was already well aware of his growing fame. And where Graves draws conclusions from her "extreme timidity and delicacy", Hamilton did not. Before his marriage proposal he had already been "agreeably struck" by her "sincerity" about his poems; regarding her "vow of disobedience" he even used the words "courageous and candid", which is quite opposite to "extremely timid", and he acknowledged and accepted her delicacy in the sense of her weak health and agreed to live a retired life with her.<sup>46</sup>

Graves thus calls Mrs. Hamilton "timid", but in the biography the word 'timid' was used by Hamilton only three times in connection with his wife. The first time was in the aforementioned letter written on the 26<sup>th</sup> of November 1832, which he wrote after he had heard that he had scared her by assuming that she had already consented to his marriage proposal. Yet without giving the exact quote, only mentioning that Hamilton wrote about her "extreme timidity and delicacy", it is Graves who leaves the suggestion of a connected future inability to control Hamilton's habits out of shyness and seclusion.<sup>47</sup>

<sup>43</sup> [Wayman, 1987, p. 303]. See also footnote 14 on p. 6.

<sup>44</sup> In those days women did not have any choice in that matter; the harshness of Victorian times was extremely clearly expressed by Mrs. Wilde in 1855. She had come to an "open day" at the Observatory and Hamilton wrote to De Morgan: "She is quite a genius, and thoroughly aware of it. One thing she said, as I was conducting her upstairs to the Dome [...], was: "Let a woman be as clever as she may, there is no prize like this for her!" [Graves, 1889, p. 497].

<sup>45</sup> [Graves, 1885, p. 27]. It is not known how many servants Adare brought with him when he visited the Observatory in 1833, see p. 173. But Hamilton seems to usually have travelled alone though, letters written while travelling do not sound at all as if he was accompanied by someone.

<sup>46</sup> See p. 154, p. 141, p. 140, p. 150.

<sup>47</sup> For the letter see p. 139, for Hamilton's habits and the very large probability that no-one could have controlled them see chapter 9.

The second time was in a letter written shortly before their marriage when Hamilton told his wife-to-be that he was so fond of his horse Planet that he had been “talking to Mrs. W.R. of putting Mrs. W.R.H. upon her; but was assured that the bare mention of the thing would kill with fright the latter lady. So be careful how you talk of such a project to any timid people of your acquaintance.” Here Hamilton used the word ‘timid’ for people who were easily frightened and not in the sense of being shy, and the timidness clearly did not include her.

The third time was when in 1841 Hamilton wrote to his former Collegiate tutor Charles Boyton (ca 1800-1844) while indirectly referring to the turmoil in Ireland: “For the last three months [Lady Hamilton] has been residing with a married sister in England, which country she, not unnaturally for a timid lady, prefers to Ireland.” Just like in the short story about Planet, Hamilton here again used the word ‘timid’ in the sense of easily being frightened or anxious, not as being an overall very timid and shy person; she was timid in these frightening political circumstances. And he probably could understand her anxiety, practising the use of a gun himself.<sup>48</sup>

Graves completes his veil of darkness about Mrs. Hamilton in the third volume when giving “overlooked” letters, by implying what a good man Hamilton was, “a true pater familias”, since in one of these letters, written to his wife in 1854, according to Graves Hamilton could even “tease her” with her “extreme shyness and retiredness.” But in the letter Hamilton did not use these words at all, he only mentioned “abstract ideas”, something Robinson said about her, yet it is unknown when and why. Robinson may have alluded to the fact that she never accompanied Hamilton on his travels, or, since Lloyd once said about her that he had never seen her at the Observatory, she perhaps did not show herself to Hamilton’s scientific friends. But she clearly was around when De Vere visited; she required after him and, together with Hamilton, invited him, although she complained about his servants.<sup>49</sup>

### 6.1.2 Ever growing fame and wedded love

In March 1834 Hamilton wrote to Whewell: “Since the close of my last Course of Lectures (about last Christmas) I have been chiefly occupied with my New Method in Dynamics, on which I am about to present a Paper to the Royal Society of London. This new application of the mathematical principle which I have already applied to Optics occurred to me many years ago, but the idea lay dormant till lately. Whenever it shall come to be caught by others, it will make, perhaps, a revolution; but of this, of course, I am not an impartial judge.”<sup>50</sup> Whewell replied: “I am glad to hear you have been turning your thoughts to mechanics, and have no doubt you will make a hole quite through them with your long analytical borer, and, for aught I know, bring up purer waters from greater depths than we have yet known, as they are wont to do in

<sup>48</sup> [Graves, 1885, p. 27], [Graves, 1882, p. 81], p. 399. Mrs. W.R. may have been Helen Bayly’s sister, Mrs. William Rathborne, but it is not clear who this Mrs. W.R.H. was. For practising the use of a gun see p. 204.

<sup>49</sup> See p. 205, p. 400. See for Hamilton’s 1854 letter and Robinson’s and Lloyd’s remarks p. 219.

<sup>50</sup> [Graves, 1885, p. 81]. Hamilton’s paper, ‘On a General Method in Dynamics’, was read by Captain Beaufort on the 10<sup>th</sup> of April 1834, see footnote 65 on p. 49. The ‘Second Essay on a General Method in Dynamics’, published in the *Philosophical Transactions of the Royal Society*, volume 125, pp. 95-144, was read in London on the 15<sup>th</sup> of January 1835, also by Captain Beaufort. It can be read online: <https://archive.org/details/philtrans04757858>.



this country.” And in April 1834 Hamilton wrote to Adare: “The Dublin Society have elected me an honorary member, and I have in consequence all privileges except those of paying and voting. The Academy have voted me a medal for something or other, I believe for the Third Supplement.” To which Graves adds: “About this time he received a communication from Copenhagen informing him that he had been unanimously elected an ordinary member of the Royal Society of Northern Antiquaries.”

### Perpetuous affections

According to Graves “the first anniversary of his wedding day prompted a sonnet to his wife characteristically truthful and affectionate.”<sup>51</sup> Indeed, Hamilton did not stop writing poems about his wife after their wedding, and there is again much love and togetherness in this poem. But perhaps more importantly in the light of this essay is that he was also openly confident that she knew his feelings well.

I know thou dost not think my love grown cold,  
 Or that I rate my treasure now less high,  
 Because that wealth is gazed on silently,  
 And more than half the love by words untold.  
 Thou read'st the feelings fervent as of old,  
 And the affections such as cannot die,  
 Altho' upon their perpetuity  
 Verse may not stamp its signature and mould.  
 For whether by thy side, or far away,  
 Resting, or all my soul to labour strung,  
 My being feels thee near, and is a lay  
 Audible unto thee without a tongue:  
 Even if this so well remember'd day,  
 And prized so dearly, had pass'd by unsung.

As was seen in his antenuptial poems, Hamilton had been remarkably open about his former feelings and, especially when combining this sonnet with the poem for Kate Rathborne, it can be seen that after his insight in the summer of 1832 he did not stop working on his mental health. In the poem for Kate Rathborne Hamilton wrote: “Fair Niece of *Her* for whom the silken threads Invisible, by Fancy's fingers twined [...] Guard [...] All the hid treasures of my heart, by grief, From many a gloomy cavern long ago Wrought forth with pain to light, refined and tried, And stamped at length in an enduring mould.” In the poem for their first anniversary he wrote: “Thou read'st the feelings fervent as of old, And the affections such as cannot die, Altho' upon their perpetuity Verse may not stamp its signature and mould.”

This indeed strongly suggests that Hamilton was remembering his old pains vividly, as Graves remarked, but also that these memories were now fixed, while his feelings for his wife should never become rigid; they had to stay nimble and alive. Furthermore, he had mentioned that he had stopped trying to bear his old feelings as a Stoic, but he apparently also had to bring them to light which thus had been a painful or perhaps difficult process; yet he had managed to come to peace with these feelings

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<sup>51</sup> [Graves, 1885, p. 89]



and memories. The poem even leaves, as a possibility, the conclusion that he talked about it with his wife; that that further helped to “wrought them forth to light”, refine, try, and stamp them “in an enduring mould”.

## 6.2 Parenthood and extended visits

Mrs. Hamilton was heavily pregnant when this poem was written, and a month later, on the 10<sup>th</sup> of May 1834, William Edwin was born. Adare, whose first name was Edwin, and Hamilton himself were his godfathers. Hamilton was a committed father; in July he wrote to Wordsworth: “My little boy, now about two months old, has not idled me much as yet, though I own that I sometimes repeat to him portions of [your] *Ode on Intimations of Immortality*, and fancy that he enjoys the sound. When his mother sings to him he is in rapture, but he really seems to enjoy my recitation too – of course from something measured in the sound.”<sup>52</sup>

At the end of August 1834 Hamilton wrote to De Vere: “As to Mrs. Hamilton and her boy, they are both quite well, and going to her mother in the south.”<sup>53</sup> The immediate cause for Mrs. Hamilton to leave the Observatory seems to have been that Hamilton would be away for some time. The annual meeting of the British Association was to be held in September in Edinburgh;<sup>54</sup> Hamilton had planned to visit Armagh Observatory on his way out and after the meeting, probably also planned, he visited Wordsworth.<sup>55</sup>

<sup>52</sup> [Graves, 1885, p. 97]. Hamilton described his stance towards babies to De Morgan on the 4<sup>th</sup> of May 1855 after a baby boy was born whom he had accepted to be a godfather to: “I call the child “him” not “it”, and though to be sure a person can’t be sure of the sex of an unborn infant, yet I felt in this case, and described in a letter to the mother, what of course I have felt at the births of my own three children, namely, the strange investiture with personality which seems to take place when an expected baby is born. Whatever may be the feelings of the mother beforehand, I am conscious of scarcely thinking of the child before birth as more than an incident of her health. The moment afterwards, he or she becomes an independent human being, with powers and responsibilities, and character in germ, and felt by me to be so.” [Graves, 1889, p. 496]. Hamilton may have been alluding to a son of Thomas and Dora Disney; their son Henry Robert Evans was born in 1855, and in the letter Hamilton also mentioned that “they are all at present residing in the North of Ireland, though likely to come soon to live within a walk of this place.” [Graves, 1889, p. 496]. Indeed, around that time the Disneys moved from Carlingford to Finglas near Dublin, see footnote 54 on p. 288.

<sup>53</sup> Hamilton continued: “The child knows my bust quite well, and it serves him as a plaything in my absence. He seems, however, to be angry that it will not speak to him, and it was amusing to watch his satisfaction this morning when after looking at it for some time he saw my living face.” [Graves, 1885, p. 105]. It is not known which bust Hamilton referred to; two busts had been made already, the first being commissioned by Adare’s father in 1830, see p. 91. According to Graves “as part of he preparation for its execution, he had to submit to a cast being taken from his head. The bust may, therefore, be supposed faithfully to represent his cranial development, and in this respect to possess a permanent value. In its representation, however, of the features of the face, it seems to me to be inferior as a likeness to a miniature bust executed in 1833 by Mr. Terence Farrell.” This miniature bust is shown as a frontispiece to the first volume of Graves’ biography, and in this essay on p. 18 as Hamilton’s leftmost picture.

<sup>54</sup> Even in those morally strict times there was humour and tolerance; in November 1834 Hamilton wrote to Sydney: “At Edinburgh I was at the house of Mr. John Hope [(1794-1857)], who lived some miles out of town, but who supplied us so well with carriages that we lost nothing on that account. You may be amused to know that my friend Lloyd’s face haunted the Scotch as well as the Irish ladies; at least Mrs. Hope [(.-1872)] confessed that she could not sleep for a whole night for thinking of its sweetness and beauty, and Mr. Hope said it was very true, and that she would not let him sleep either, she was so often exclaiming about it.” [Graves, 1885, p. 111].

<sup>55</sup> [Graves, 1885, p. 110]. Graves mentions that Hamilton wrote this in a letter to a relative, but

Hamilton had invited the Association to hold the 1835 meeting in Dublin and this invitation was indeed accepted, which meant that in spring 1835 he would be spending a lot of time organizing it. Mrs. Hamilton was very unhappy with that as can be seen in a letter she wrote to him on the 19<sup>th</sup> of September while he was at Edinburgh. According to Hankins her letter was “petulant and cross: “I am sorry to find you are to be Secretary next year, as I fancy it will be a troublesome office. ... When next you write let your letter be franked if you can, as my money is all gone. Your nurse costs me 5 or 6 shillings a week for bread and candles, besides I was obliged to buy him a small bedstead.””<sup>56</sup> But she apparently still loved him since back at Bayly Farm Hamilton was very happy; on the 6<sup>th</sup> of October 1834 he wrote in a letter to Lloyd: “I have been here about ten days, at Mrs. Bayly’s house [...]. The visits had been pretty well exchanged before I came, so that I have enjoyed a most luxurious quiet, far greater than any I have ever had at home.”

“At the beginning of the year 1835 Hamilton was again at Bayly Farm. It may be remembered that soon after his return from Edinburgh he joined Mrs. Hamilton there, and there plunged into mathematical work. His lectures summoned him to town in the beginning of November [1834], and when they were over, upon the approach of Christmas, he was again with his wife and child. The state of her mother’s health detained her in the country, and Hamilton had till the end of May to go backwards and forwards between the Observatory and Bayly Farm.”<sup>57</sup>

On the 29<sup>th</sup> of December 1834 De Vere had written a letter to which Hamilton replied from the Observatory on the 30<sup>th</sup> of January 1835: “I was not at home when your interesting letter arrived, informing me of the approaching marriage of your sister [Ellen]: and if I have postponed writing, [...] you have not, I am sure, imagined for a moment that my silence arose from indifference. Anything connected with her happiness must always be very interesting to me; and a connexion such as you describe must be likely to secure and increase it: especially as the neighbourhood of Curragh to the dwelling of her future husband will make her feel less separated than she otherwise would be from the scenes and friends of her childhood.” As expected earlier, Hamilton was able to be happy for her.<sup>58</sup>

But studying was difficult when Mrs. Hamilton was not around, and after writing about a newly published essay by Coleridge he continued: “My own occupations, for some weeks past, have been more of an outward and social nature than of a studious or meditative kind. It disarranges me much, I find, to live long in so lonely a place as the Observatory still remains, awaiting the return of its lady; and even for withdrawing into solitary thought, I want a companion from whom to withdraw. For this, or some such reason, I find my visits to the south, and the weeks that I have spent with

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he does not give a name. It is again an indication that there is much information about Hamilton’s daily life in the letters to family and “private” friends not given by Graves.

<sup>56</sup> [Hankins, 1980, p. 121]. The nurse was, apparently, hired by Hamilton for, in her eyes, too much money. Indeed, although an income of 5.5 shillings a week would amount to £14.3 per year, considerably less than Hamilton’s income or even that of Thompson, who earned £100 per year, [Graves, 1882, p. 434], it could still be a reason for her to worry; according to the website *MeasuringWorth* in 2014 the income value of a 5.5 shilling commodity in 1834 is £412, and having to pay that amount of money because of Hamilton’s inattention may have irritated her much. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 23 Oct 2015]. Hamilton was never very good at handling his finances, see for instance p. 147 and p. 258, and she must have been desperate at times.

<sup>57</sup> [Graves, 1885, p. 118]

<sup>58</sup> See p. 117.

my wife and child at the cottage of her mother, much more propitious to study than the intermediate intervals at home. But I have lately been attending many committees and meetings of societies connected with Science, and in that way chiefly occupied myself lately, as I did with another public excitement (my Lectures) when I was at the Observatory before Christmas. I start again for the south at an early hour to-morrow, intending to visit Lord Oxmantown on my way, and hoping to return in about a fortnight with Mrs. Hamilton. ...

“P.S. At a public evening meeting of the Royal Irish Academy on Monday last, I received (without any specific expectation) a large gold medal, as a mark of approbation of that long memoir of which you heard me give an abstract. [Graves remarks: His Third Supplement to the Essay on Systems of Rays, which included Conical Refraction.] This somewhat disturbed me in commencing another public address on the subject of the British Association.”

Hamilton was happy that he could return to his “wife and child, and Mrs. Bayly,” and on the day of his departure he wrote a sonnet in which, according to Graves, Mrs. Bayly was the “Mother” of the last line.<sup>59</sup>

Draws to its close a melancholy while,  
 A long long night of absence; from the sky  
 Melts off the solid gloom; pale phantoms fly,  
 And soon the blushing dawn will brightly smile;  
 And like a man who many a weary mile  
 Hath travelled lonely, if at length his eye  
 Discern the wish'd for fountain, so feel I,  
 A traveller near the Sources of the Nile.  
 What I have pined for, what has been a power  
 Guiding my steps through time as his through space,  
 Imagined though unseen, will face to face  
 Repay me soon for many a lonely hour:  
 When I shall clasp, in a remember'd bower,  
 Mother and wife and child in long embrace.

But it was not possible for Mrs. Hamilton to come back home with him; Graves mentions that Mrs. Bayly was ill, and according to Hankins her illness must even have been severe since Hamilton prepared contacting the family lawyers in case she would die. Yet Mrs. Bayly's health will not have been the only reason to stay at Bayly Farm; on the 24<sup>th</sup> of December 1834 Hamilton had, as mentioned before, written to uncle James that he contemplated staying at Bayly Farm for another month, the Observatory being still unfinished.<sup>60</sup> Apparently, renovations were still going on at the Observatory, and especially in wintertime it will therefore not have been a very healthy place for a little child to live in; the people working in the house presumably created dust which would add to the smoke from candles and hearthfires while the windows will have had to remain largely closed because of the cold.

Hamilton thus was alone at the Observatory for a longer time than he had expected, and according to Hankins “even the servants were gone.” Hamilton had never lived alone; he had moved from his uncle James' house in Trim to the Observatory

<sup>59</sup> [Graves, 1885, pp. 119-120], [Graves, 1889, p. 232]

<sup>60</sup> [Hankins, 1980, p. 121], [Graves, 1885, p. 118], [Wayman, 1987, p. 301], p. 163

where he was accompanied by his sisters, and they only left when he was married. But different from Hankins' suggestion, being alone at the Observatory was not completely alone literally; there always was Hamilton's assistant Thompson, who was mentioned as his assistant for the first time in 1827, and about whom he wrote in 1853 to De Morgan: "The vast majority of [the] forty and odd thousand observations has been made by my assistant, Mr. Charles Thompson, retained from Dr. Brinkley's time. His diligence and accuracy appear to me to be increasing rather than diminishing. I must add that I have spent with him a great many nights of observing in the dome."<sup>61</sup>

And although Hamilton outranked them, which will have meant that they could not comfort him or provide real companionship, there were people working in the garden and on the fields who apparently lived close by since William Edwin wrote in his *Peeps*: "All our gardeners kept game birds in the hay lofts [...] and used to fight them under a huge chestnut tree in the paddock, in the violet light of dawn. I used to slip out of the back door in my stocking feet and bet marbles on the winner."

Wayman sketches a very likely way in which the residents of the Observatory and the houses on its premises and close to it may have lived together: "The fields were used for growing fodder (hay) and other crops during the time of the early professors. The necessity seems to have been that 'farming in a small way' would supplement the income of the professorship. This clearly depended upon having satisfactory farm assistance and it is dubious as to how effective this assistance was. Throughout the Nineteenth and the Twentieth Century, it was probably the occupant of the gate lodge who did the caretaking and general handyman work, and assisted with the use of the fields and stable yard. Also there was a small farmhouse on the other side of Dunsink Lane, near to the Dunsink tumulus. [...] Probably mutual help between the residents of the gate lodge and the family in the farm provided for sufficient servicing of the land; it is possible that the domestic staff often came from the farm as well. [...] It is probable that the few servants were handed on from director to director, that they had a regime largely their own, with their own perquisites, and that they comprised a loyal band through quite a few decades in an isolated home that presented considerable difficulty for them as well as for their employers. If the resident families had children, there would have been long walks to and from the schools at Castleknock and Finglas."<sup>62</sup>

Hankins continues: "His housekeeping arrangements were primitive. During March [1835] Helen and her mother sent him a giant "goose-pye" [which] was three weeks arriving and it sat in the post office for some time because it was "too heavy and unhandy to be brought out on horseback."" They probably worried about the pie since Hamilton "reassured them that it would save him all the trouble about dinner." Luckily, he could "supplement the pie with dinners at Scripplestown and Dunsinea."<sup>63</sup>

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<sup>61</sup> [Graves, 1885, p. 686]

<sup>62</sup> [Hamilton Jr, 1895, p. 3], [Wayman, 1987, pp. 187-188]

<sup>63</sup> [Hankins, 1980, p. 121]. This is not as strange as it may sound here; next to tasting good, making goose pye was a means of preserving, see pp. 107-108 of the 1847 cookbook: *The Art of Cookery, Made Plain and Easy*. By a Lady [Glasse, H.]. London: printed for a Company of Booksellers. <https://archive.org/details/TheArtOfCookery>. After describing the recipe to make goose pye the author adds: "This pye is delicious, either hot or cold, and will keep a great while. A slice of this pye cut down a-cross makes a pretty little side-dish for supper." Preservation was of course a challenge in

Also from this latter remark it can be seen that he was not just being lonely; he apparently visited his family-in-law very regularly. And he wrote and received letters and paid visits to friends; late in February Lady Campbell wrote: "On Saturday I was longing to have a good talk out with you: talking to you makes my own ideas clearer to myself; and you have another great charm, which is, that you make me imagine that I understand your ideas, and that flatters my vanity."

In January 1835 Hamilton had visited Lord Oxmantown who was constructing a three-foot telescope at his Observatory at Parsonstown, and he had written to Adare about the polishing of the mirror; "a grinding process under the steam-engine, so regulated (I believe) as to wear away only a fiftieth of an inch in a fortnight." Having travelled back and forth between Bayly Farm and Dublin, in February Hamilton again visited Parsonstown from where he wrote, on the 18<sup>th</sup> of February, a letter to his wife in which he described the progress of the polishing process. Which is remarkable since it suggests that she would understand that and even find that interesting.

Four days later he wrote her another letter: "it was really surprising to see the great brilliancy of the planets, and even of some stars which were not of the first magnitude. When the tube was nearly, but not exactly, adjusted to Jupiter, so strong a light was thrown upon the side by the reflexion from the mirror, that it reminded me of the light thrown on the ground by a coach-lantern [...]; whereas my largest object-glass does not throw a sensible picture on paper (so far as I remember) of any but the brightest stars and planets. [...] Upon the whole [...], I am very glad that I have seen at least the mirror; and it happened that I was the first to point it at a celestial object, which will be something to remember (if I live) in after-years." And in May 1835 he could bring his family home again.<sup>64</sup>

### Preparing the 1835 meeting of the British Association

Mrs. Hamilton had been right about the amount of work Hamilton would face for the meeting of the British Association to be held in Dublin in August; according to Graves he was, in any case from June until August 1835, "actively exerting himself in his official capacity as local secretary, to secure the success of the meeting." Graves explains why Hamilton had to work so hard: "This arose not only from the fact of his official position in connexion with Professor Lloyd as Local Secretary of the Association, but from his being generally looked upon as having to bear a greater part than any other individual in the responsibility of securing its success, as well by inducing the attendance of eminent members, as by imparting spirit and distinction to its proceedings. He laboured accordingly in the matter with all his energies."

Indeed, Hamilton's fame was still growing; in June 1835 Herschel wrote from Cape of Good Hope, South Africa: "And now let me [...] thank you for your most elaborate letter containing your new view of Dynamical Science. But alas! I grieve to say that it is only the general scope of the method which stands dimly shadowed out to my mind amid the gleamy and dazzling lustre of the symbolic expressions in which it is conveyed; and were it not that I would not willingly forego any opportunity of admiring the splendid and fierce rapidity of your mathematical career, I could almost regret that you had taken so much trouble for one who can now only look on as a bystander, and mix his plaudits with the smoking of your chariot wheels, and the dust

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those days making goose pye appealing, and it was probably not meant to be a main dish.

<sup>64</sup> [Graves, 1885, pp. 118-122]

of your triumph. But go on and prosper – conquering and to conquer!” Graves adds: “Proofs of his reputation in England reach him at this time, in the shape of solicitations to undertake literary work of a scientific nature.” But Hamilton did not have time for the majority of these requests.<sup>65</sup>

### 6.2.1 A proud father

On the 4<sup>th</sup> of August 1835 their second son was born; they named him Archibald Henry, after his grandfathers. And on the 15<sup>th</sup> of August, during the meeting of the British Association he had jointly organized, Hamilton was knighted. Mrs. Hamilton was not present; they did not know beforehand that he would be knighted, but even in case it was entrusted to her and she did know, she could not have attended the ceremony, their baby being only eleven days old. Attending such a meeting so shortly after childbirth would be difficult now, but it was even more so in those days; lacing up the waists had began around 1825, and looking at the fashionable dresses of that time it is easily imaginable that the standing ceremony alone would have been too much already.

This idea is further corroborated by a then famous and very often reprinted book, *Hints to Mothers*, which prescribes that a woman who has just given birth “must strictly keep *the horizontal position*. Indeed for *three weeks* after delivery an almost constant compliance with the latter direction is highly important [to prevent] *the falling of the womb*, a very common and distressing complaint.”<sup>66</sup> And since there were no correction operations then, that was absolutely a very good idea.

Hamilton was happy and proud of his sons, and in March 1836 he wrote to Adare, who wanted to get married: “I have had much better health since I married than for a long time before: and such seems to be the impression of those who meet me after an absence of a few years only; though some who see me after ten or more years’ separation remark how old I am grown.” And Hamilton hoped, Adare being godfather to William Edwin, that he would “look forward to a still higher and purer enjoyment when you shall have “Pinkies” of your own. You must know that your godson has somehow got the name of “Pinkie”, or for greater shortness of “P.”, which letter is accordingly his favourite; though when he is asked what his name is, he answers in his own way, what his nursery-maid has taught him, “William Hamilton!””<sup>67</sup>

Almost analytically following William Edwin’s progress, in June 1836 Hamilton wrote, in a memorandum, some stories about his son, who was now two years old. “He finds it hard to pronounce the letter S; and generally softens a hard G or K (as in “good”) by putting an L after it. Thus he calls comet “clomet,” and says “gloo boy” for “good boy.”” “He calls writing “P. O.” because those two letters were the first that I used to write for him; and like most children he says “Day-day!” for “good-bye!” or “farewell!” A good while ago, he had been urging me to play with him one morning that I was busy writing. At last I came to the end of a subject, and rose up to comply with his request; on which he joyfully exclaimed, “Day-day busy P. O.; papa busy P. O. no more!”” To which Hamilton added explanatorily: “[“Good-bye to being busy writing; papa is no longer busy writing.”]”

<sup>65</sup> [Graves, 1885, pp. 126-127], [Graves, 1885, p. 147]

<sup>66</sup> [Bull, 1837, p. 157]. The book is from 1837, but doctors will likely have practised this already.

<sup>67</sup> [Graves, 1885, pp. 182-183]



"A few days ago, as he was helping me to dress, I told him that a comb which I had in my hand was my comb. "Papa's comb," said he, "not poor Boo's comb." I said to his Mother, "He has a great notion of property." He then began to try to repeat this over to himself; "Great notion," he said, "big notion, great big notion," ... but he could not pronounce, or perhaps remember, the word "property"; so, at last, he said, with the air of having conquered a difficulty, "Poor P. has a great big notion that Papa's comb is not poor P.'s comb." "He generally speaks of himself in the third person, sometimes even in the second, but always reserves the first for his Father. Thus, when he comes to me in the morning, he sometimes says, "Get up, put on my trowsers!" meaning that I, his Father, should put on my own. And the other day he said to me, "Put gold chain on your neck!" meaning that I should put it upon his. This was, of course, in imitation of what he had heard me say, when I had spoken of putting on my clothes, or asked him "shall I put this chain upon your neck?"

In July he wrote to Adare: "What amuses me most in your godson at present is his attempt to make magnetical experiments, and also to learn or rather construct a grammar of the personal pronouns. ... As to grammar, and his efforts to construct one, his difficulty, as I hinted before, is chiefly in the personal pronouns. He began by simply imitating me, with whom he holds more conversation than with anyone else; and thus he formed the habit, which he still very exactly retains, of applying the pronouns I, me, my, to everything that his father does, or suffers, or possesses. For the same reason, he applied you, and your, to himself. For example, one day that I was dressing for a dinner of the Provost's (rather late, as I thought, though it happened for a wonder that I was the very first guest that arrived), he coaxed me to tie round him the cravat that I had just taken off; and, as I did so without speaking, and perhaps with some look of impatience while I laid down my razor for the purpose, he almost made me out myself with laughing, while I heard him afterwards carry on this dramatic soliloquy: "There now; I did tie cravat round your neck; I'll not tie cravat any more!" But the purity of this grammar of his has been corrupted, by his having since listened to me speaking of him to his mother; so that, as things overheard weigh most with children, he now has come to the conclusion that the third person is the proper one in which he should speak of himself; and this he did for some time with an amusing air of acquired precision, and of confidence in his perfect accuracy. But, poor fellow, he seems to be at sea again, for I heard him this morning apply all three pronouns to himself, saying, "I did, you did, he did," do, I forget what, but something which I found to be an action of his own."

In August 1836 Hamilton wrote a letter to his wife from the Bristol meeting of the British Association and the letter sounds as if he was proud of her too: "At one part of his speech [Lord Northampton] alluded to the influence of women, and after some playful compliments he seriously remarked that it was hard to say how far the tastes of some eminent observer of nature may have been formed by his mother's having shown him a flower or a shell when a child. This remark was applauded, and I thought of Pinkie and you." Clearly also proud of his own understanding of his eldest son he wrote in a second letter to her: "This morning I breakfasted with Mr. and Mrs. Lubbock before they returned to London, and saw a child exactly the age of Pinkie, who can imitate the noises of certain animals, but apparently nothing more. I asked about his personal pronouns, and Mrs. Lubbock, having nothing to tell me of him, told me of a French book on education in which it is mentioned that a mother having said to



her child, "I must go somewhere without you" ("sans vous"), received the answer, "pas sans vous!" This was just, in its own way, Pinkie's use of the second person of our grammars, but it seemed to be recorded without being understood, and merely as an instance of confusion of thought in the child, whereas, according to my theory, it is an instance of imitation of the phrases used by grown-up persons."<sup>68</sup>

### The second extended visit

From August 1836 Lady Hamilton again lived with her mother at Bayly Farm, this time for ten months; Hamilton's letter to Adare about William Edwin was written at the Observatory in July, she thus probably left when Hamilton started for England. On the 28<sup>th</sup> of November Hamilton wrote to Eliza: "I have been at Bayly Farm till lately, since my return from England. Helen and the two boys are in good health. The youngest has grown so fast, that they look almost like twins; but the eldest keeps his start in mind; and I have been greatly amused by an account of his beginning to lecture the other on sundry scientific points, which account has just now reached me in a letter from his grandmother. ... At all events they are tolerably good, and are a great entertainment to me. The eldest took notice of the prism which Newton holds in hand, in the miniature statue engraved on my two Royal Medals; and told me, entirely of his own accord, that Newton was making colours. He had, you must know, a little six-penny prism of his own, which is perhaps his favourite toy."

In December Hamilton stayed at the Observatory, but from New Year's Eve 1836 until the end of April 1837 he was again in Nenagh. "Hamilton's stay at Bayly Farm for so long a period was caused by the declining health of Mrs. Bayly, which required the constant attentions of Lady Hamilton. He returned, however, alone to the Observatory towards the close of April."<sup>69</sup> Perhaps due to him having to leave for Dublin again without his wife and children Mrs. Bayly "felt the need to make excuses for Helen's frequent absences from the observatory and [she] wrote, on the 24<sup>th</sup> of April, a letter to Hamilton: "[Helen] is so fearful you should be jealous of her great attachment to me, but that can never interfere with her love for her husband; it will cement it, should such a material be wanting. ... Helen says we three are united by one chord, when that chord is touched it sounds a unison perfectly in tune."

But Hamilton was, again, not just spending his days alone at the Observatory; he attended meetings in Dublin and, since he wrote a letter while being at Cousin Arthur's house even though Graves does not mention a visit, it can be assumed that he also paid visits to family and friends. On the 25<sup>th</sup> of April there was a fire in Dublin, and Hamilton wrote to his wife from Cousin Arthur's house: "I hope to show [some Egyptian Antiquities] to you yet in the Library of the Academy some day."<sup>70</sup> But at this moment, they, with every other book and paper, are lying huddled up in the Provost's House; for early this morning Dublin was alarmed by the cry of Fire! – a fire which broke out in the Arcade; and the College became a place of refuge, to which books and furniture were conveyed from the houses that seemed most exposed; and I

<sup>68</sup> [Graves, 1885, pp. 183-187]. Mr. Lubbock was presumably Sir John William Lubbock (1803-1865), a London banker, barrister, mathematician, astronomer and scientific writer. He was married to Harriet Hotham (.. -1873).

<sup>69</sup> [Graves, 1885, p. 197]

<sup>70</sup> Next to, apparently, being interested in the polishing process in Parsonstown, see p. 182, this might show another of Lady Hamilton's interests.

have been all day, since I first heard of it, in the middle of the crowd in the neighbourhood, though I could not be of any use, because the military and police, who were present in immense numbers and worked the engines very well, allowed no stranger to interfere. It was awful and indeed sublime to see the volumes of smoke and flame, the incessant spouting of water from the engines, and the falling of those houses which were pulled down to prevent the fire from spreading. By this time all danger of such spreading appears to be over, but mischief to a great amount has been done."

And early in June 1837 Hamilton "had the delightful recreation of a visit at the Observatory from his friend Aubrey De Vere, with whom he enjoyed again walks along the Tolka's side, visited the Botanic Garden at Glasnevin, and renewed his impressions of the charms of the Dargle and the Powerscourt Waterfall. This holiday excursion woke his dormant Muse, and he soon after sent to his friend four Sonnets, to which he subsequently added a fifth. One of these was addressed to his wife, in the prospect of his again joining her and his children and her mother; the others recorded the pleasures of his renewed association with his friend."

De Vere reacted happily, writing on the 10<sup>th</sup> of July 1837 that although the sonnets Hamilton had sent were "decidedly the best Sonnets you have written" he was "not prepared to give up my partiality for that peculiarly addressed to me."

Shall we not long remember, Friend beloved!  
 The sweet succession of these pleasant days  
 Enjoyed together, and a frequent gaze  
 Turn back in fancy on what soothed or moved  
 Our mingling spirits; whether while we roved  
 Garden, or river-bank, or rocky shore,  
 Heard the rill murmur, or the ocean roar,  
 In various forms the power of beauty proved,  
 Or joy of serious thought and converse free,  
 Progress and aspiration, or the blending  
 Of hues that were revealed externally  
 With other colours of our own souls' lending,  
 And now – the hour of parting nearly come –  
 The human interest of this happy home.

De Vere also had had a very fine time and mentioned, in the same letter, his remembrance of the ten day visit of 1832: "I think we agreed at the Dargle that our pleasure was not to end with the day, but to revive again every now and then in remembrance, besides being often repeated in reality. I can answer for the former part of our agreement: I cannot tell you how often and how pleasantly I have gone over those delightful scenes in imagination. It is very odd that it is not only the views and incidents which were most striking to us at the time that rise up again in memory, but little things of all sorts, which we did not remark at the time. I really think it is but a small proportion of the pleasure derived from such an expedition that we enjoy on the occasion. I would rather pass a whole week in the rain than lose the recollection of that day. Do you remember our dinner at the Waterfall – our chicken-bone and glass of wine, our pæans to the torrent, and above all our gradual inebriation, produced, I believe, by the spray and mist, which had as powerful an effect on our spirits as if they had exhaled laughing gas instead of common air. It was something

like the excitement of your old greyhound "Smoke" at the river of Abbotstown. Do you know I can hardly look back upon a time of greater enjoyment than those ten days we passed together? [...] We should always get as much as we can out of those unaccountable fits of spontaneity which come upon us now and then, at least enough to illustrate the mood we are in, and the degree of development we have reached, so as to note the progress we have made."<sup>71</sup>

Already two days later Hamilton reacted writing: "Many pleasurable feelings inspire me to write to you," immediately followed by asking De Vere to read something interesting he had just read, and going into some of the many subjects in De Vere's letter. He does not seem to have had any second thoughts regarding the ten-day visit in October 1832 or the dark poem mentioning the "ghastly sounds" which he had written two months thereafter, during the weeks that Helen was in Nenagh. Of course, this can be seen as an unwillingness from Hamilton to talk to De Vere about how during that visit they avoided talking about his earlier depressions concerning Ellen de Vere, which would in turn make their friendship slightly doubtful. But there is not any indication for that; De Vere had openly written that he had noticed that Hamilton did not speak, or wanted to speak, about it, and Hamilton had even sent the dark poem to De Vere.

Hamilton's positive answer to this letter, his poem De Vere was proud of, his later mentioning the very special intimacy of this friendship,<sup>72</sup> and his unburdening to De Vere in 1855, apparently trusting that De Vere would understand his deepest feelings, seems to indicate that the dark poem indeed was composed while feeling sad about the past, those feelings in turn triggered by his worries what would happen if Helen would decide not to marry him, rather than being due to something in connection with De Vere himself. Knowing that Hamilton believed that poems must come from true feelings, the happy poem he now wrote for De Vere again supports the idea that Hamilton, when feeling depressed or alone as he did in that December month in 1832, in the dark poem also describing his feelings of the moment truthfully, could often hardly believe that such feelings could pass by again; during such sombre moments he even seems to have felt as if these feelings had always been there.

Another one of the poems Hamilton had sent to De Vere was written on the 14<sup>th</sup> of June and "addressed to his wife." Looking forward to their reunion and apparently sincerely accepting Mrs. Bayly's remark about their unison, in the poem Hamilton was, according to Graves, alluding to her as the one who guarded his "treasured human flowers."

Long time, Lady mine and truest Wife!  
It seems since I could gaze upon thy face;  
Each from the other, by the power of space,  
Parted, though living each in other's life:  
'Twixt outward things and love a weary strife!  
Which shall be over soon. The hour is coming,  
When after many days of pleasant roaming,  
Or sweet familiar toil, a higher life  
Shall breathe through all my being, and of joy

<sup>71</sup> [Graves, 1885, pp. 188-189], [Hankins, 1980, p. 122], [Graves, 1885, pp. 197-200]. See for the visit to the Botanic Garden also p. 48.

<sup>72</sup> See p. 309.

A swifter pulse shall beat, while I behold  
 Thee, and in mine embracing arms enfold,  
 And tender form of each beloved boy:  
 And her, who all these treasured human flowers  
 Had guarded for me in her quiet bowers.

And at the end of June Hamilton “went down to the South, to bring back with him his wife and children.”<sup>73</sup>

### Death of Mrs. Bayly

The year 1837 brought many deaths; according to Graves “the shadows of mortality [...] passed across [Hamilton’s] spirit. His grandmother Hutton in March, and his aunt Mary Hutton in May, both of whom had from earliest days a hold upon his affections, were removed by death; his sympathies were excited in the latter month by the death of the first-born son of Lord Adare.” “Now he was receiving at the Observatory his wife’s mother, Mrs. Bayly, concerning whom he could not but apprehend that her vital powers were failing fast; and her bright and amiable nature had bound him to her with ties that were filial in more than name. She arrived in the beginning of September, and within a week he had to start for Liverpool to take his part in the Meeting of the British Association.” Hankins writes that “on the eve of her trip to the observatory [Mrs. Bayly] wrote: “Helen is so dear to me I get into low spirits when I am not well with the fear of leaving the world without seeing her once more.”” Lady Hamilton clearly was a beloved daughter.

On the 15<sup>th</sup> of September Hamilton wrote a letter to his wife from Liverpool, and on the 22<sup>nd</sup> another one from Dunraven Castle: “Let me just tell you now, that after a journey of two hundred miles through very beautiful scenery, I arrived here in time for dinner yesterday, and found the place to be one of the highest order of romantic grandeur – on the very verge of precipices, against the bases of which the sea continually dashes. In storm the scene must be magnificent, but even in a calm it is fine. I wish you were here to see it. You may conceive that I was glad to see Lord Adare here, in his glory, as head of a family, a castle, an estate, a county; and that he was equally glad to see me once again.”

“The illness of Mrs. Bayly hurried him home: he arrived at the Observatory on the 30th of September, only in time to see her die, after he had heard her pronounce in one word her gratification at perceiving his presence beside her bed. Among her papers was a memorandum respecting her property, made by her during an illness which she had experienced at the Observatory in November 1835,<sup>74</sup> on the outside of which was written: “This is to be read by my dear Son, Sir William Hamilton, who has been a comfort and a blessing to me from the day that united him to my daughter to this day: and I am sure I shall say so when I am leaving this world.” Her lively and affectionate letters to him of her latest year proved that her feeling towards him remained unchanged to the end.”<sup>75</sup>

<sup>73</sup> [Graves, 1885, p. 199], [Graves, 1885, p. 197]

<sup>74</sup> Having been at the Observatory in November, it is possible that she had come when Archibald was born. Also having children and grandchildren at Scripplestown and Dunsinea, such a visit can easily have taken some weeks.

<sup>75</sup> [Graves, 1885, p. 205], [Hankins, 1980, p. 122], [Graves, 1885, pp. 207-210]

## 6.3 Self-analysis

In December 1837 Hamilton became president of the Royal Irish Academy, and he continued to investigate his mental health as can be seen from the fact that in February he carried out a character analysis of which most of the results are very recognizable from his letters, and some seem to be surprisingly honest.

“Bearing date the 21st of February, 1838, is a Paper in Hamilton’s own handwriting which possesses great interest: it is an estimate by himself of his own character, viewed in reference to a phrenological distinction of faculties set forth by a Mr. Wilson, a disciple of Spurzheim [(1776-1832)], who about this time gave lectures in Dublin upon the so-called science.”<sup>76</sup>

### METAPHYSICO-PHRENOLOGICAL ANALYSIS OF MY OWN CHARACTER, ACCORDING TO THE SCHEME OF WILSON.

#### AFFECTIVE FACULTIES.

Amativeness: strong. Parentiveness: moderate; fond of children, but not disposed to have them constantly with me. Destructiveness: weak. Constructiveness: uncertain, a fondness for constructing theories, but nothing else. Attachment: strong. Concentrativeness: strong, great power of abstraction, disposition to study one subject only for some time. Combativeness: rather strong, great fondness for argument, but not a disposition to quarrel.<sup>77</sup> Ideality: (very) strong. Approbativeness: strong. Self-esteem: very strong. Cautiousness: very strong. Faith: moderate. Conscientiousness: very strong. Firmness: rather strong. Secretiveness: moderate. Imitation: weak. Hope: variable; sometimes sanguine, sometimes depressed. Veneration: moderate. Acquisitiveness: moderate. Benevolence: (very) strong.

#### INTELLECTUAL FACULTIES.

Eventuality: a little strong, moderately interested in anecdotes and facts, fond of newspapers (novels and history), a little fond of (phenomena) experiments. Comparison or Analogy: rather strong. Causality: (very) strong; highly inclined to speculations of all kinds. Congruity: (rather) strong, enjoy wit in others; am inclined to observe propriety or impropriety, elegance or inelegance in manner. Individuality: moderate, usually too abstracted to observe much; yet, when stimulated, I can remember individual persons or things; much more apt, however, to interest myself in classifications. Locality: moderate; I easily lose my way; yet sometimes retain long a vivid

<sup>76</sup> [Graves, 1885, p. 247]. “Dr. Gall [(1758-1828)] is the founder of the system. Dr. Spurzheim, though he did not first start the system, became so able an auxiliary and associate of Dr. Gall, that these two gentlemen may be regarded as the individuals who have actually founded a new system of philosophy.” *The Dublin Penny Journal*, volume 1, 28 July 1832, p. 39. <https://babel.hathitrust.org/cgi/pt?id=hvd.32044004489530;seq=53>.

<sup>77</sup> In the same month as he did this test Hamilton wrote to the Marquess of Northampton: “[Whe-well] is, as indeed everybody knows, a man of very powerful intellect; I long to know him more intimately than I do: as it is, we have had many little fights, in the most loving spirit, and hope to have many more – not that I own myself to be particularly pugnacious – but I cannot resist the temptation of an argument with a great original like him.” [Graves, 1885, pp. 249-250].

impression of some particular scene; also enjoy scenery and travelling, and geometry. Time: uncertain, habits unpunctual; but fondness for dwelling on the thought of time and of regular succession. Order: moderate, untidy in habits, but I enjoy the contemplation of order. Size: weak. Form: uncertain. Weight: uncertain. Colour: weak; can scarcely tell green from blue, at least when I see them apart. Artificial Language: (rather) strong; facility and pleasure in acquiring foreign languages, so far as to read them; but not in learning to speak or write them. Natural Language: strong; a disposition to speak oratorically. Number: very strong; great aptitude for calculation. Tune: uncertain; cannot remember any piece of music, yet am much affected and delighted by good music, and distinguish particular passages when I hear them; attempt always to read poetry with great attention to rhythm. Motion: moderate. Smell: weak. Touch: moderate. Taste: moderate.

"Thus the Faculties or Dispositions which I am disposed to signalise in myself as stronger than the rest are, in Mr. Wilson's technology, and arrangement: Ideality, Self-esteem, Cautiousness, Conscientiousness, Firmness, Benevolence, Causality, Number, and perhaps, Language. Next to these I would class (still using Mr. Wilson's phrases and arrangement): Amativeness, Attachment, Concentrativeness, Approbateness, Eventuality, Compassion, Congruity, Individuality, and perhaps, Parentiveness, Combateness, Faith, Secretiveness, Hope, Veneration, Acquisitiveness, Locality, Time, Order, Tune, Motion.<sup>78</sup> The others seem to be all weak or doubtful, namely: Destructiveness, Constructiveness, Imitation, Size, Form, Weight, Colour, Smell, Touch, Taste."<sup>79</sup>

Perhaps for this essay almost equally interesting are Graves' comments on the results, giving a further insight into his opinions about Hamilton, and his choice of the page-heading, "The Religious Element in Hamilton", seems to show what he considered to be most important in his own comments. After making it clear that Hamilton only used this "so-called science" of phrenology for "convenience sake, as supplying a ready-made scheme, approximately accurate, of the constituents of human nature," Graves continues: "I think that no one who knew Hamilton well would deny that this analysis is, with slight exceptions, as complete and truthful a representation of the man as anything so abstract can be, and that it is really useful towards a just appreciation of him [. . .]. I would call attention to the sincerity in self-appraisal evinced by his attributing to himself "self-esteem" and "cautiousness" in great strength, while he denotes "faith" and "veneration" as only moderate. With regard to both of the latter affections I think that friends most competent to judge would differ from his own estimate, and pronounce that he possessed them not in moderate but in large measure. To me it seemed that he was always disposed to reverence – he met even a child with reverence; – but, probably because he felt it indispensable that he should call his intellect into action for the purpose of testing whether the immediate object of his thought was worthy of reverence, and had often to negative its claims, he was led to doubt whether the feeling were as strong in him as in others who exercised it more unquestioningly. And a similar suggestion may be made in regard to his possession of faith: by him many things which with others belonged to the region of faith were seen to belong to the region of intellect; but no one more absolutely

<sup>78</sup> "Comparison or Analogy" is missing, "Compassion" was not in the list.

<sup>79</sup> [Graves, 1885, pp. 247-248]

acknowledged that there was a region for the exercise of faith, or more unreservedly laid hold on the truths it afforded. I may add that there are other items in the catalogue which equally indicate his philosophic truthfulness, and the disposition to underrate rather than overrate his powers.”<sup>80</sup>

### Comments in the light of this essay

In the context of this essay the most striking of Hamilton’s answers are those regarding Hope and Secretiveness. Regarding Hope it can be seen throughout the biography that Hamilton could be very happy and very unhappy, and it cannot be said from the biography if he was mostly happy or not. That seems to be corroborated by his own rating; “Hope: variable; sometimes sanguine, sometimes depressed.” His comment also seems to show that he did not think that he had a basic positive or negative idea about life; like most people he simply had a life with ups and downs.

Regarding Secretiveness, which Hamilton rated as moderate, it can be remarked that although people said about Hamilton that he “simply was transparent” and could not tell a lie, he seems to have been able to just avoid subjects, which is indeed not the same as telling a lie. Despite his reverence for marriage he did hide letters from his wife, for instance, in 1852 he wrote to De Morgan about one of his letters: “I will not show it to anyone who (like Lady Hamilton, to whom I have not shown it) might be apt to consider it profane.” The first time Graves makes a remark about Hamilton hiding his feelings was when he was describing 1819; staying for the summer with his father Hamilton had asked to be allowed to stay longer because he wanted to see the acting of Miss O’Neill. He attended two plays, and Graves writes: “It is remarkable that in reporting these incidents in a letter to his sister Eliza he expresses no admiration, and makes no comment. I can only account for this by supposing that he knew the topic was unacceptable to his sister, whose religious views may not improbably have led her to disapprove of the stage.”

And a month later, in September 1819, Hamilton wrote to Eliza about the difference between a conversation and a correspondence: “I find epistolary correspondence, at least with you, although troublesome in some degree, yet recompensed by the pleasure it brings along with it. I cannot, however, think that it affords by any means equal delight with conversation; the one is in a great measure solitary, the other reciprocal; in the first, questions put require some interval before they can be answered, in the second curiosity may be immediately allayed; correspondence is restricted, conversation unreserved – not to mention the pleasure of seeing one another, of meeting after a long absence. It has often been said to me by my uncle, that it is easy for anyone to compose a very long letter by merely writing what they would say on supposition of seeing the person addressed; and this was applied to my letters to my father. And although I never could exactly refute this argument, yet it certainly appears to me fallacious. For many things which one would say by word of mouth, they would feel unwilling to record (as it were) on paper; to give things either trifling or secret the chance of being ridiculed or discovered.”<sup>81</sup>

These quotes can be used to get a feeling for the boundaries in Hamilton’s days, both of himself and of society; despite all the moral strictness most people were not so

<sup>80</sup> [Graves, 1885, pp. 248-249]

<sup>81</sup> [Graves, 1889, p. 405], [Graves, 1882, p. 62], p. 293, [Graves, 1882, p. 66]



“puritanical”, as his father called it, that having secrets would be a sin in itself. It can easily be assumed that Hamilton hid the 1848 six-week correspondence with Catherine from his wife although Hankins does not explicitly mention this in his biography, but later Hamilton did hide memorials of Catherine from her, and correspondences with Dora Disney-Evans and Louisa, one of Catherine’s younger sisters.<sup>82</sup>

Hamilton probably hid more from his wife; William Edwin wrote in his *Peeps* how he “worked out” with a hooked wire a “forbidden novel” out of the locked wire door of one of his father’s libraries. Perhaps Hamilton kept these books principally out of sight of visitors, yet it can be easily assumed that he also did not show them to his wife if she already could find De Morgan’s letters profane. But he did not hide things out of maliciousness; it can even be argued that he sometimes did that in order to protect his wife in those morally very strict times. And in 1852 he wrote to an “intimate friend”: “Indeed I have much for which to seek forgiveness both from God and man – but certainly I have never caused pain for any gratification of my own.”<sup>83</sup>

### Comments on Graves’ remarks

A few comments can also be made about Graves’ ideas about Hamilton, triggered by Graves’ remarks that “this analysis is, with slight exceptions, as complete and truthful a representation of the man.” Graves’ “slight exceptions” are that “faith” and “veneration” should not have been rated as only moderate but as strong. But after having read the biography, the idea arose that Graves regularly appears to have believed that he understood Hamilton better than that Hamilton understood himself.

Graves’ remark about veneration, that Hamilton used his intellect “for the purpose of testing whether the immediate object of his thought was worthy of reverence” while others “exercised it more unquestioningly,” and therefore rated his veneration too low, seems logical, but it might as well support Hamilton’s own idea that his veneration was moderate; if he had to think about it, it was not deeply anchored within him. Indeed, regarding Adare Hamilton gave a more intellectual reason for his formality than was suggested by others, and the same could hold for veneration; it was argued before that with all the praise he received, combined with his high self-esteem, which he indeed rated as very strong, he had to stay very aware of the mere necessity of humbleness, which perhaps would look like a “disposition to reverence.”

Commenting on how Graves regarded Hamilton’s faith is connected to the general way Graves seems to have been thinking for Hamilton throughout the biography. Graves believed that Hamilton was “profoundly subjective”; as mentioned, Graves kept daydreaming about how Hamilton’s life could have been had he married Ellen de Vere, that “he would have found [...] all that could be given in human companionship to uphold his moral being, to supplement his too subjective nature, and to sustain in healthful order and beauty the course of his daily life.” But this view is actually contradicted by Hamilton’s ability to look at himself quite objectively, for instance with regards to his formality, his analyzing himself in order to gain control over his melancholy moods, or this test.<sup>84</sup>

<sup>82</sup> See p. 34, p. 316, p. 318.

<sup>83</sup> [Graves, 1889, p. 231], p. 291. For De Morgan’s “profane” “letter from Paradise” see p. 292, see for William Edwin’s story p. 322.

<sup>84</sup> See p. 47, p. 148, [Graves, 1885, pp. 632-633], p. 115.

The veils of darkness Graves draped over the biography all have to do with that; Hamilton was convinced he wanted to do something, such as marry Helen Bayly or drink alcohol, or that he had to do something, such as work relentlessly, but Graves did not agree. Hamilton was a romantic, Graves was not; for him, perhaps because he was a reverend and morality thus a basic part of his profession, everlasting happiness and a very long life in beautiful order seems to have been more important than following a passion as Hamilton did, if necessary at the expense of his health. And Graves does not seem to have had a clue; while describing 1839, the beginning of Hamilton's so-called "high-church days", he wrote: "I have often found it hard to comprehend Hamilton's intellectual humility in intercourse with others, as combined with his consciousness of his own powers,<sup>85</sup> and yet I believe it to have been real; but of his religious humility it was always impossible to entertain doubt."<sup>86</sup>

Graves seems not to have realized the importance of, for instance, the last letter Hamilton received from his father, in which he was warned not to trust his own judgments too easily. Indeed, Hamilton had been praised enough to be deeply convinced of his powers, but his family had been very aware of the dangers of too much praise. Hamilton stated more than once that he needed mental exercise to remain humble, also in a religious sense; as mentioned earlier, in 1849 he wrote: "But for that very reason I am induced, and in a manner compelled, to recognise [...] the infliction of a hand which is determined that I shall feel and own a Master – against whom I cannot defend myself, when He chooses that I shall suffer." That seems to indicate that it was imaginable for him that he would start to believe so much in his own powers that he could tell himself to be almost omnipotent. And to Catherine he had written the year before: "Of some great sorrow I am sure that the discipline was necessary to tame, in some degree, a spirit of self-reliance, which has not yet, perhaps, been sufficiently subdued, but against which I am learning, at least, to be more and more on my guard."<sup>87</sup>

This may have been the difference between Hamilton's and Graves' view on his faith: devout being a word he more often uses for Hamilton, Graves seems to have regarded Hamilton as simple in matters of faith, yet Hamilton had to work hard to stay humble, also religiously. And that is what is tried to be shown here; that Hamilton was less simple, or even naive, than people thought he was; that he was in general very conscious of what he was doing. Graves does not seem to have understood that Hamilton really was working with himself, he did not simply accept being who he was. And it was argued before that he had to do that; without constantly paying attention to himself and striving to remain humble he would have become someone unable to live and to work with, which would have ruined his marriage and would have seriously impaired his chances of winning himself an "imperishable name".

But of course, such a problem is extremely uncommon; how often do people know from such a very young age that they can achieve such fame while living in a society with such very strict social rules. If it is hard for many contemporary movie stars,

<sup>85</sup> At the beginning of the biography Graves had written: "The following memoir will contain proofs that religious humility was a fundamental part of Hamilton's character; yet the papers he has left show by many indications his consciousness that he was a great man, and that, as a natural consequence, interest would in future times be felt not only in the salient events of his career, but in the vicissitudes of his inner life." [Graves, 1882, p. v].

<sup>86</sup> [Graves, 1885, p. 306]. See for the "high-church days" p. 405.

<sup>87</sup> See p. 65 and p. 271.

musicians, sporters, &c., especially if they become famous at a very young age, it probably was even harder for him. It was doubtlessly Hamilton's fortune that he was warned at such a young age; by his uncle James and his father, by Miss Arabella Lawrence and his aunt Mary Hutton<sup>88</sup> and perhaps also by other people Graves did not write about. Hamilton simply had to remain humble while needing at the same time, and being very conscious of that, an enormous amount of self-esteem to be able to work on his quaternions, which were seen as "monstrous", even to the level of ridicule. That is a very difficult combination of which Hamilton was fully aware; he had mentioned in a letter to Miss Arabella Lawrence that to "know himself" was perhaps more than usually difficult for him having been "assailed from childhood by the siren voice of praise." And that he therefore was happy with her sincerity.<sup>89</sup>

Throughout the biography it can be seen that fellow scientists were less humble, and Hamilton could have settled with that. But he did not want to do that, he wanted to be a good man, he rated his Benevolence as very strong. And he knew that if he would work very hard on his humbleness he could achieve both his ideals: be extremely famous and yet be seen as a good man. He succeeded; his name is still used on a daily basis, and despite the negativity in many biographical sketches, he is never described as an unkind or unpleasant person.

And as to Graves; despite all this negativeness about him it must be said that for twenty-three years working himself through all Hamilton's writings was absolutely an enormous achievement. Without Graves' love for Hamilton, which can be read all through the biography, and his having worked so hard in, doubtlessly, such healthful order that he could finish it before dying, much less would be known about Hamilton as is known now. And if he would not have been so extremely open and truthful it would certainly not have been so easy to comment on Graves himself.

## 6.4 Happy, sombre and studious years

In May 1838 Adare and his wife had a baby daughter, and Hamilton wrote: "Your godson heard me telling the news to his mother last night, and fell into a deep reverie, after which he asked me whether I would let him have a daughter, and what he should do with her when he had her. He was four years old on the 10th of this month, at which same time it happened curiously that his younger brother, Archibald Henry, was exactly a thousand days old." In June Hamilton travelled to London to attend a banquet in honour of Herschel who had returned from South Africa, and in August he attended the annual meeting of the British Association in Newcastle.

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<sup>88</sup> See p. 37, p. 50, p. 51. In his 1865 letter of condolence to Lady Hamilton, De Morgan wrote a passage about how he heard about Hamilton for the first time, at the same time indicating that he was well aware of the fact that next to inherited genius good behaviour was crucial to reach the highest goals: "When I – a year younger than [Hamilton] himself, as it happens – was an undergraduate not far advanced, and he must have been about nineteen years old, I heard of the extraordinary attainments of a very young student of Trinity College, which were noised about at Cambridge. This rumour was made more interesting by other rumours which also circulated about the same time concerning another young Irishman, then recently matriculated at Cambridge. This was poor [Robert] Murphy [(1806-1843)], whose subsequent career, though great in mathematics, fell short in conduct and discretion. He wanted all but mathematical education in early youth. The appearance of the two at once in the field gave both an interest, and I was thus led to watch Hamilton's career before I knew anything of him personally." [Graves, 1889, p. 216].

<sup>89</sup> See p. 59. For the quaternions being "monstrous" see p. 340.

About this meeting Graves writes: "On the 17th of August, Hamilton left home to attend the Meeting of the British Association at Newcastle. He determined to visit Mr. Wordsworth on his way, and reached Ambleside on the evening of the 18th. The next day, Sunday, he spent at Rydal in the society of the poet. From Carlisle, on Monday night, he wrote to Lady Hamilton an account of his progress. The letter, from which I give some extracts, is in many respects characteristic, from his race against time, at the outset, to the proofs of a warm and considerate affection with which it concludes."

Now that her mother had passed away Lady Hamilton stayed at Dunsinea during his absence,<sup>90</sup> and on the 20<sup>th</sup> of August Hamilton wrote to her: "After leaving you at Dunsinea I was very hard set to be in time for the five o'clock train, and in fact should not have been so if it had not been for poor old Brownie. As it was, the Post Office clock struck five before I reached Carlisle Bridge, but I determined to try whether any favourable chance might befriend me, and found that lately the trains, for some reason or other, set out after their nominal times, by about ten minutes, which exactly met my case. The steamer started in less than two minutes after I got on board; and we had a calm and pleasant passage to Liverpool. From Liverpool, after a short delay, I was able to proceed by coach to Kendal; and thence I went, by car, to Ambleside, in company with a very gentlemanly and agreeable person, Mr. Maund [(1790-1863)], a Botanist, the author of a periodical so-called, which we shall perhaps be tempted to procure. It was about nine at night when we arrived at Ambleside, and I was unwilling to run the risk of disturbing Mr. Wordsworth, who has been lately unwell, by going to him then; but I spent the Sunday with him at his house, attending, however, Divine Service at the Chapel of Ease which is close by. He is in perfect vigour of mind, and in good general health, but suffering severely from a rheumatic attack, which he exposed himself to by resting on the wet ground, and which obliges him to lie on a sofa. He made many inquiries after you and our two boys, and showed me his grandson William, who is, you know, my godson, and whom I liked and admired very much. ..."<sup>91</sup>

<sup>90</sup> [Graves, 1885, pp. 256-257]. Lady Hamilton had spent the first time that Hamilton attended the meeting, in 1833, at home being ill. Her mother had not been at the Observatory; when in September she had become alarmingly ill her mother was sent for, but she could not come before October. The unpleasantness of staying at home alone while being ill that first summer can be guessed from her choices the following years; in 1834 and 1836 she had been at Bayly Farm, in 1835 she just had given birth to Archibald, and although Mrs. Bayly was not named around that time, the biography being focused on the Dublin meeting and the knighthood, as mentioned in footnote 74 on p. 188 it seems very likely that Mrs. Bayly was at the Observatory then. And in 1837 Mrs. Bayly was at the Observatory for the last time; she died just after Hamilton's return.

<sup>91</sup> Perhaps the trains were late more often, or even too early which is sometimes worse, and Hamilton's assistant Thompson probably saw an opportunity there. He placed an advertisement in *Thom's Irish Almanac and Official Directory, with the Post Office Dublin City and County Directory, for the year 1850*. Dublin: Hodges and Smith. On p. 19 of the 'Index to Advertisements' it can be read: "C. Thompson, Astronomical Assistant of the Dublin Observatory, Is willing to supply Railway Directors, annually, with a Daily List of Astronomical Phenomena, for Assimilating Time at the various Railway Stations throughout Ireland and the Sister Kingdoms. It is conceived that a Dissemination of the List along the various line will enable every Station Clerk to determine, with ease and accuracy, that which he at all times ought to know, namely, the Error of his Clock on London or Dublin Mean Time: thus rendering any farther communication with either observatory unnecessary. The probable expense of the work may be known on forwarding to this address a copy of the Company's Time-Table." <https://books.google.com/books?id=6V4NAAAAYAAJ>. In the 1857 volume of the *Almanac*, it is mentioned on p. 621 that, like Hamilton before his knighting,

“Early this morning (Monday), Mr. Maund and I joined in procuring another car, to take us over Kirkstone to Patterdale, whence, after breakfast, we proceeded along Ullswater, the most beautiful of all the lakes of this lovely country; such at least it is in my opinion, and I hope sometime or other to have your opinion too upon the point: and making for Penrith, we were tempted to call in at Lowther Castle, where I found that Lord Lonsdale [(1757-1844)] and Lady Frederick Bentinck, his daughter, remembered me.<sup>92</sup> They made Mr. Maund and me take luncheon with them, sending a message to us as we were beginning to visit the Castle with another party of strangers, my name having been given in at the door. ... Lord Lonsdale pressed Mr. Maund and me to spend a day with him on our return from Newcastle, and promised to endeavour to get Wordsworth to meet us; and being taken somewhat by surprise, and not liking to deprive my fellow-traveller of a pleasure to which he was invited chiefly on my account, remembering also that the Castle lies in one of my best homeward lines of road – I accepted the invitation; but will not act upon it, unless I find that I can do so without being thereby prevented from getting home within the time I told you, ... for you may be sure that I wish to see you again as soon as I can. Since I arrived at Carlisle this evening I have bought for you, as a little memorial, a neck-kerchief which I think you will like.”

In Newcastle he met “many of the scientific lights of England, now well-known to him,” and returning “he profited by the invitations which had been pressed upon him, that he and Mr. Maund should give a second day to Lord Lonsdale and Lady Frederick Bentinck, and to the beauties of Lowther. [...] A letter of acknowledgment from Lady Frederick Bentinck is urgent that he should, in the summer of the next year, again visit Lowther riverside, and bring Lady Hamilton with him. This kind wish was probably the seed of the Sonnet to his wife, which he composed on the 29th [August 1838], during a midnight walk along the shores of Lake Windermere.”

TO MY WIFE.

My wedded and beloved One, to thee  
 How oft and tenderly hath fancy strayed;  
 While hope, of her own visions half afraid,  
 In trembling joy reposed on memory,  
 As tremulously on yon inland sea  
 Glitters a fair and solitary star;  
 And, like a dove that knows his nest afar,  
 Fluttered my heart in fond fidelity.  
 Friends have I won who shall be thine; the wise  
 And great of Britain, for my sake, not few,  
 Will welcome thee, and for thine own sake prize:  
 And Ladies, rich in noblest courtesies,  
 With love maternal, or sororal, view  
 Thy gentleness, and give thee honour due.

Still becoming more famous Hamilton was, for instance, elected unanimously as a Corresponding Member of the Imperial Academy of Sciences in St.-Petersburg.

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Thompson was an Esquire. <https://books.google.nl/books?id=BXc9AAAAcAAJ>.

<sup>92</sup> He had visited them with Wordsworth in 1830, see p. 91.

Learning to know and befriending many scientists at the meetings of the British Association, he seems to have enjoyed the thought of visiting all these new friends more and more and, being proud of his gentle wife he imagined how they all would like her, and how happy he would be. It seems that he was slowly forgetting his promise of a retired life.<sup>93</sup>

### A happy homecoming

Hamilton described his homecoming after these visits in a letter to the Marquess of Northampton, who had been at the Bristol meeting in 1836 and now also in Newcastle: “The *Urgent* [...] received me again on board; and it was late before I ceased to walk the deck, so beautiful became the scene after a slight shower cleared away. It was a glorious and a lovely night, such as few are; the sea was like a lake, and the moon shone lovingly upon it. England appeared to bid me gently a farewell; and Ireland seemed to welcome my return, for when I came again on deck the sun was rising, bright and clear, over the Bay of Dublin. My absence, short as it had been, made me glad to revisit that bay, and to see again all old familiar things. It produced also another effect; it made me for the moment see, with something of the zest of a stranger, the peculiarities of manner and expression which strike an Englishman on landing. I was amused for instance at the cool assurance of one merry beggar, who gave as a reason for relieving him that “Provisions are so *dear* here, your honour!” – the contrary being so notoriously the case, that I suppose he thought his only chance of not being detected was to pass his lie before it could by possibility be examined; and when a grumbling Englishwoman attacked a carman on the smallness of his horse, compared with those she was accustomed to see in Liverpool, – “Ah Ma’am,” said he, “if we had them here, we would soon make them small enough! Such big beasts would not go thirty miles upon a feed of oaten-meal!” This saying won my heart, or at least so tickled my fancy that I got up forthwith on the car, without waiting for the first railway train, and by the small but lively (and not ill-treated) horse was drawn in rapid style from Kingstown to Dublin, and thence to the Observatory. Glad was I when I saw the distant dome shine in the morning sun; glad when, emerging from the long green quiet lanes of its thinly peopled neighbourhood, I entered my own lawn. It was not yet seven o’clock, and I kissed my sleeping children; then walked down the hill, across two slightly sloping fields, to the house [Dunsinea] of a married sister, where it had been arranged that my wife should dine and sleep during my absence, the Observatory at night appearing somewhat large and lonely. She was sleeping with a favourite niece, but woke as I entered the house; dressed in the dark, and soon was with me in the drawing-room. We had, you may imagine, much to talk of; and all that day I thought that she was looking very well, though I regret to say she is far from well to-day, and I now am writing in her bed-room, while sitting in that room in the quality of nurse. We went together to the Church of Castleknock, a place known to the readers of Swift; and there enjoyed what I fear Swift never knew, as it ought to be and may be known, the pleasure of joining, with thankful hearts and minds, in the commemoration of that Last Supper upon earth of Him who gave for us His body and His blood, and who has appointed to us a way whereby we may feed on them for ever. We were pressed to dine at the house of the sister who had received Lady Hamilton in my

<sup>93</sup> [Graves, 1885, pp. 266-268], [Graves, 1885, p. 270]



absence; but preferred to spend the remainder of the day at home, wishing to walk together in our garden, and visit the flowers to see how they prospered. My children met me in the fields, on our way homeward; they both were wild with delight, and the usually copious (too copious) flow of words of the eldest was changed at first to an inarticulate stammer of happy wonder. ... Dearly did they enjoy the rummaging of my travelling bags, and the searching for things which they might keep as memorials of my last visit to England. To their mamma I communicated the invitations with which I had been charged for her, especially by you and Lady Marian. I endeavoured to describe the inviters, and the kindness with which you both had urged your request; and repeated to her what Lady Marian had said to me, that a husband ought not to have friends who are not also the friends of his wife. The result was, that although Lady Hamilton has hitherto gone little out, she authorised me to say that she would very gladly join with me in accepting the invitation to Castle Ashby.”<sup>94</sup>

#### 6.4.1 On the rooftop of society

Only a few days hereafter Lady Hamilton fell ill, but halfway September she was well again and Hamilton wrote to the Marquess: “I can scarcely imagine pleasanter weather than that which we enjoy here just now; it combines indeed the characters of summer, spring, and autumn, for a seat in the open air is pleasant, the verdure and the flowers are abundant and unwithered, and yet much of the wall-fruit is ripe. A few days ago, I tempted my wife to a new enjoyment, by persuading her to spend some hours upon the roof of our house, which is in great part flat, and commands a very extensive and varied view, although the mountains and the sea are somewhat too distant for sublimity, but not, I think, for beauty. Dublin is just far enough to allow its spires to be seen with something of picturesque effect; and on unusually calm mornings or evenings we can hear the chime of clocks or bells, deprived by distance of all harshness. But I hope that sometime or other you will come and judge for yourself.”

Graves comments: “The prospect of a visit to Castle Ashby was realised sooner than had been anticipated. Early in October, Hamilton and his wife were received at Castle Ashby by Lord Northampton and his daughter, and there spent three weeks of great enjoyment. In letters to his sister Eliza, Hamilton mentioned the varied employments of the day, in which reading aloud had an honoured place.”<sup>95</sup>

#### A sombre yet not unprofitable year

As he had done in the beginning of the year 1839, in the beginning of 1840 Hamilton started to keep a journal. On the 1<sup>st</sup> of January 1840 he wrote: “The year 1839 has been a sombre one to me, but not I trust unprofitable. Even to the public it has been in some respects a year of gloom: opening with the murder of Lord Norbury [(1781-1839)], which was soon followed by the storm of the night of the 6th of January: the summer nearly all rain. ... In my own circle there was first the illness of Eliza; afterwards of Helen; then of Cousin Arthur; of our own children; of other near connexions; the deaths of Anna Hort and of Henry Bayly. Anxieties about my uncle

<sup>94</sup> [Graves, 1885, pp. 272-274], [Hankins, 1980, p. 122]. Lady Marian Alford (1817-1888) was one of Lord Northampton’s daughters; the Marchioness, Margaret Maclean-Clephane, had died in 1830.

<sup>95</sup> [Graves, 1885, pp. 275-277]



James, and Arthur Grueber.<sup>96</sup> We gave up all visits, to Lord Northampton and other friends except to those who were sick; made no excursion for pleasure, even to the county of Wicklow; did not attend the Meeting of the British Association at Birmingham. On the other hand, the year has been with me a very studious and thoughtful one. Though continuing to attend the [Royal Irish] Academy regularly, and having some laborious employment connected therewith, especially on the subject of the medals, and some contested questions, I have been able to prevent those attendances and duties from distracting me much from private thoughts and study. The early part of the year was (I think) well employed in mathematico-dynamical researches, which were afterwards at intervals resumed. Several works of others, mathematical and physical, have been read by me with pleasure and (I hope) with profit. Metaphysical thought and reading have occupied a fair share of time. In that and in the more properly astronomical way, preparation was made for my annual Lectures, which appear to have been thought useful. My knowledge of instruments has advanced, and seems to enable me now to be of more service than formerly to the Class and the Observatory which have been committed to my charge. The errors of the Equatorial in the Dome have been carefully studied and in part corrected by adjustment. Some languages are perhaps a little more familiar to me now than they were at the beginning of the year. But above all, the Bible has been better studied, and various kindred studies have been especially of late pursued. And to others also for whom I am interested religious things have gradually disclosed more of their importance. Cousin Arthur in particular had his illness blessed to him. [...] My conversations with Helen have led her and myself, I trust, to sounder views on matters connected with Christ's Church on earth. Family prayers have been more regular than they used to be here, and my children have gladly attended them, in the evenings (at least of Sundays and other holidays) as well as in the mornings. So too has Mr. Thompson on Sunday evenings. ... My children have continued to grow up (it is fondly hoped) in the nurture and admonition of the Lord. And I feel an increased desire to submit myself in all things to God's appointments and to follow teachably His leading.

"As to hopes and intentions for the year just begun, I have many towards God; of which the least is (though far be it from me to treat it as unimportant) to make more

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<sup>96</sup> See for the storm p. 202. According to the website *Offaly Historical & Archaeological Society* it is still unknown who killed Lord Norbury; according to the website *The Peerage* it was his butler. He "may have been associated with the Ribbonmen," who were fighting against the Protestant landlords and their agents, and supported the Repeal of the Union. [www.offalyhistory.com/reading-resources/history/history-by-place/durrow-who-killed-lord-norbury](http://www.offalyhistory.com/reading-resources/history/history-by-place/durrow-who-killed-lord-norbury), <http://thepeerage.com/p1848.htm> [Accessed 23 Nov 2015]. Henry Bayly and Arthur Grueber belonged to Lady Hamilton's family, Anna Hort was a sister of Rev. Charles Hort. But from the biography nothing more is known about these four people except one letter which Hamilton wrote to Charles Hort in December 1839: "When you asked me, just as I was going in to lecture Thursday last, whether I had the parts lately published of a work entitled *Ancient Christianity [and the Doctrines of the Oxford Tracts]*, Taylor, I. (1839). London: Jackson and Walford. <https://archive.org/details/ancientchristian00tayl>." my first impulse was to mention that I not only had those parts, but should be very willing to lend them. But on looking over my copy I find that I have written upon its pages so many and such free comments, for the most part unfavourable, as to have in some degree the air of a reply. Now to give private circulation to any such remarks, so made and so connected together, even by lending them to a friend like you, would not appear to be fair or decorous treatment of an author whose piety and talent are with joy acknowledged, even by those who are constrained to consider him as not yet wholly purged from the leaven of dissent, and as not having escaped the temptation (to which indeed we are all exposed) to rationalise away a part of the revealed truth of God." [Graves, 1885, pp. 306-307].

visits to Morgan's Schools, of which, by special invitation of the late Archbishop of Dublin [Graves adds: Dr. Magee [(1766-1831)]], I have for several years past been, in conjunction with the clergymen of the parish, a local inspector; and to look more than I have ever hitherto done after the Scriptural and Catechetical instruction of the boys there educated.<sup>97</sup>

"With respect to my own studies and other professional or Academical exertions, I can scarcely wish to work harder during the new year than during the old one, since it seems wrong to injure my health without a definite call to do so; and though preserved from actual illness throughout the year just expired, I feel some degree of languor and exhaustion, arising, as it seems to me, from too much uninterrupted exertion. But I am conscious that it behoves me, both for my own sake and for the sake of others, to be more methodical in my work than I have hitherto been. ...

"In point of fact I ended the year 1839 and began 1840 by two distinct acts of family worship, in which Helen joined: evening prayer, including the Collect for Christmas Day, being offered up by us near midnight; and morning prayer, with the Collect for the Circumcision, being entered on a few minutes afterwards."<sup>98</sup>

### Graves' comments

In 1839 Hamilton had written in his journal only for a month, and in 1840 he wrote in it only for one day. Renewing the 1839 resolution at the turn of the year can support the idea that Hamilton really saw writing this journal as a good resolution although generally resolutions made at the turn of the year are hard to maintain. Already in 1819 Hamilton had written to Grace: "It is agreeable to be able to trace back the events of one's life, trifling as they may be; but my journals might be interesting if I could bring myself to record, as it were, my thoughts and feelings on different occasions at different times. This, however, I have never done, as if I thought they were more secure in the repository of my heart. Whereas if they were committed to paper, I might perceive the gradual change of my ideas, be led to examine whether my present or former ones were correct, and not to place too great confidence in my own judgment."

But according to Graves this was not just a good idea; when starting to describe 1839 he writes: "In the beginning of 1839, Hamilton resumes a long disused practice of keeping a journal: "It is true," he wrote, "that I never kept up the practice very long at one time, but still the occasions resuming of it appeared to me to do me good by causing me to be more watchful over the employment of my hours than I might otherwise have been." His motive in thus resuming the practice was, we see, a moral one, having a view to self-government; yet it may be questioned whether it did not

<sup>97</sup> The schools of Richard Morgan (..-1784), Esq. of Newcastle, were charity schools for "Children of poor reduced Protestant Parents". *Thirteenth Report from the Commissioners : of the Board of Education, in Ireland*, Oct. 1812, p. 276. [www.jstor.org/stable/30074187](http://www.jstor.org/stable/30074187) [Accessed 28 Nov 2015].

<sup>98</sup> [Graves, 1885, pp. 311-312]. There exists a highly romantic anecdote about Hamilton and the family prayers, linked to his "kind feeling" towards children, which "extended to our dumb fellow-creatures." "His feeling consideration for all living things around him drew towards him from them unbounded confidence. One instance of this made a deep impression on those who witnessed it, and indeed it was an occurrence fitted to excite and to excuse a somewhat superstitious wonder. On a Whitsunday morning, as he was reading prayers in the centre of his assembled household, a dove flew in through the open window and settled on his head; it was undisturbed by Hamilton, who continued to read, and after an interval it peacefully flew out." [Graves, 1889, pp. 235-236].

encourage the habit, which no doubt was in him excessive, of self-contemplation. His brain worked with such constant and powerful action, and upon subjects so absorbing, and which brought him in the daily course of life so few sympathisers, that it was impossible that he should not be, as it were, his own most interesting object, particularly as his seclusion in the country deprived him of the sight of other men doing men's work in his own or other fields of intellectual labour, and made their influence upon him rare and occasional only. Not that this seclusion was on the whole to be regretted; he would have been unable, had he not enjoyed it, to carry through his deep investigations, and to master the long calculations which they involved, and would thus have failed to accomplish his own peculiar work; but doubtless it tended increasingly to incline too much to the subjective side the balance of his faculties. In this journal the minutest details are recorded, and the succession in time of all that passed faithfully adhered to. For instance, after a characteristic comment upon the Address to Urania at the beginning of the Seventh Book of *Paradise Lost*, he continues: – "I talked and played a little with the children, and then went out to throw the boomerang, and to think about the Royal Irish Academy. Formed a plan about the future ballots for members in the several committees, &c., &c. After dinner read the two first chapters of Isaiah in the Hebrew, Helen reading in the English aloud; also a part of Biot's *Traité de Physique*."

Although it was doubtlessly hard for Graves that Hamilton wrote so much, for this essay the remarks of the journal are informative. For instance, if Hamilton thought he needed to "be more watchful over the employment of my hours," it indicates that he knew that he was not good at that. Yet it can be said that it must have been difficult for him to define goals, a necessity for anyone who wants to make better use of his hours; intrinsically creative work without external deadlines does not have clear goals, ideas seemingly going to take some weeks can take years and vice versa. But since Hamilton had already changed his habits in positive ways, he was perhaps confident that he also could change other traits which were not good for him.

Calling Hamilton's motives to resume the journal "moral", concluding that they made Hamilton overly self-contemplative, even as if he was "as it were, his own most interesting object," does again not sound as if Graves took Hamilton's daily life very serious; wanting to be "more watchful over the employment of my hours" can simply have meant that Hamilton's family complained seeing him so little at times, or that Hamilton realized that his neighbours sometimes did not see him for weeks and that he regularly did not answer letters from his correspondents, especially when he was in a "mathematical trance".<sup>99</sup>

It was shown earlier that the Hamiltons saw many more people than Graves gives account of; he seems to have thought that only fellow scientists and members of the peerage could have been of any serious influence, and his disdain for Lady Hamilton will not have helped in this matter either. Indeed, from Graves' remarks it may be inferred why he made his choices; writing the biography without discussing Hamilton's work in depth, but also without descriptions of his daily life, again underpins the idea that his main goal was to show what a wonderful man Hamilton was, and how the important people agreed with this standpoint.

<sup>99</sup> [Graves, 1885, p. 310], [Graves, 1882, p. 67], [Graves, 1885, pp. 284-285], p. 103, p. 224. Next to Hamilton's motives as written to Grace in 1819, see p. 200, for another probable view of Hamilton on his describing 'minute details', remarkably given by Graves himself, see footnote 85 on p. 193.

But that makes it difficult to extract from the biography how Hamilton lived his life. Without the “minutest details” it would not have been known that the Hamiltons read together after dinner, or that Hamilton played with the children and threw the boomerang outside. Or that he walked through a storm on his way to attend a meeting in Dublin. Through the ‘minute details’ it is easier to realize that Hamilton had a full family life and often visited meetings in Dublin, and the combination with his intense correspondences makes Graves’ remarks about Hamilton having “in the daily course of life so few sympathisers” rather odd. Perhaps Graves, as a reverend and a poet, having no children and stemming from a highly educated family,<sup>100</sup> was himself used to having, on a daily basis, much social interaction with “important people” in and outside his home.

### The Big Wind

“The entry for the next day [Monday, the 7<sup>th</sup> of January 1839] will call up before those who knew Hamilton a picture of the simple, zealous, great man,<sup>101</sup> blown along by the canal-side with his hat in one hand and an Academy Minute Book in the other, which will take its place among the remembrances of him which are most characteristic.” On Sunday the 6<sup>th</sup> Hamilton wrote in his journal: “Festival of the Epiphany. – Went to the Castleknock Church with Helen. A terrible storm in the night.”<sup>102</sup> And on the 7<sup>th</sup>: “Went out on roof and through the lawn and lane to see the effects of last night’s storm, which is said by many to have been the greatest that they remember, greater than that of 1822, which stripped my uncle’s house in Trim. We have suffered less than many of our neighbours, but some of our trees have been blown down, especially a fine one on the lawn, under which a seat had been; it is entirely rooted up; and one at Campbell’s house in my lowest field has fallen across the road, and in its fall has crushed the iron gate of the field. The carpenter and other workmen were all the morning engaged in removing this tree, so far as to make a passage; and a little after two I was able to get under what remained of it, with my car and with a bag of books, on my way to attend a meeting of Council; but when we arrived at the foot of Cardiff’s Bridge Hill, just on this side of the entrance to William Rathborne’s lower avenue, the car was stopped by another much greater tree, and I determined to walk the rest of the way to town. Accordingly I did so, going along the canal from the nearer to the farther of the two bridges over which we usually drive; the storm, which about this time got up a little again, almost blew me along, and it required some watching to prevent my being blown into the canal: my hat was blown away in

<sup>100</sup> In a webarticle about the historian Leopold von Ranke (1795–1886) who married Graves’ sister Clarissa Helena Graves (1808–1871), ‘Von Ranke in Dublin’ on *History Ireland*, it is written that “the Graves family was highly educated, proud of its scholarly achievements and constituted an intellectual dynasty.” [www.historyireland.com/18th-19th-century-history/von-ranke-in-dublin](http://www.historyireland.com/18th-19th-century-history/von-ranke-in-dublin) [Accessed 09 Oct 2015].

<sup>101</sup> This description is one of the most clear examples of how Graves saw Hamilton.

<sup>102</sup> The storm in the night of the 6<sup>th</sup> to the 7<sup>th</sup> of January 1839 was so devastating that it was later referred to as the ‘Night of the Big Wind’. Although at the Observatory the damage was not too great, a quarter of all Dublin houses were damaged; that night many people died while many survivors became homeless and consequently ill, only to die later. It was such an impressive event that when, in 1909, pensions were introduced, people who did not know their age were asked if they remembered the night of the Big Wind. See Haggerty, B., The night of the big wind. *Irish culture and customs*, [www.irishcultureandcustoms.com/ACalend/BigWind.html](http://www.irishcultureandcustoms.com/ACalend/BigWind.html) [Accessed 26 March 2015].

spite of all my efforts, but I recovered it from a deep ditch, and carried it in my hand for some time, having also to carry the Minute Book of the Committee of Science: in short, after sundry little adventures I was glad to find a covered car disengaged in Eccles-street, which took me to the Academy in good time. [...]. Walked off with [a work Lloyd returned to me] under my arm and with a new Paper by Green on Reflexion and Refraction of Light in my pocket; got a covered car to take me to the canal bridge nearest Dublin; walked thence to the Observatory, in a storm of wind and snow, passing under trees that had been blown across the road, and reached home about a quarter after six, well wet of course; changed all my clothes, dined, &c. Ran over Green's Paper."<sup>103</sup>

### A studious year

As Hamilton mentioned in his journal, that summer he did not attend the meeting of the British Association in Birmingham and Graves writes: "Several residents of distinction competed for the pleasure of being Hamilton's host; but [a letter to Adare] assigns the cause which prevented him from attending, namely, his engagement in a train of mathematical research. [...] Shortly before the meeting he wrote to [Lord Northampton an] agreeable letter, which was something of a compensation for the disappointment, and to which a most friendly reply was received, giving a full account of the chief incidents of the meeting."

But this letter also contains something remarkable: Hamilton had written: "... Being in a journalising, egotising humour, I resemble only too much the inveterate story-telling button-holder, who asks his victim, "Where was I?" You at least have this vantage over the ever-to-be-commiserated-button-held, that, without giving any offence, you can rid yourself of the bore by simply sacrificing to Vulcan, whose mighty forge you are about to visit, and whose inconstant spouse, in the form of the Evening Star, is likely to adorn your evening walks or drives through the said Cyclopean City of Fire and Iron." Graves presumably wrote his account of his 1829 visit to Dunsink Observatory, containing his comments on Hamilton's character, after Hamilton's death. Yet Hamilton here sounds as if he knew about it; from his talking too abstractly and too long to people who were not interested, up to the mentioned boredom he apparently sometimes invoked. This might be an indication that there was gossip, and that Hamilton was well aware of the contents.

In November 1839 Hamilton wrote to Adare that "On the whole, I think that this year, though in some respects gloomy to me on account of anxiety about friends, has been a very profitable one." And it was also a year of again growing fame; Graves writes: "The latter half of this year brought to Hamilton several tokens of the high appreciation in which he was increasingly held in foreign lands. From Boston, U.S.A., he receives a letter signed by the four sons of Nathaniel Bowditch [(1773-1838)], requesting his acceptance of the concluding volume of their late father's translation of the *Mécanique Celeste*, as a mark of their deep respect: from [Johann Franz] Encke [(1791-1865)], his brother astronomer of Berlin, acting as Secretary of the Physical and Mathematical section of the Royal Academy of Sciences at Berlin, a notification reaches him informing him in highly honourable terms that he had been appointed Corresponding Member of that Academy." This list is continued by compliments of

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<sup>103</sup> [Graves, 1885, pp. 286-287]

“The Chevalier de Kerckhove, dit de Kirckhoff [(1789-1867)],” his “early correspondent Schumacher [(1780-1850)]” and the “eminent Italian mathematician, Gabriel Piola [(1794-1850)].”<sup>104</sup>

## 6.5 An “illness of a nervous character”

Towards the end of the year 1839 Lady Hamilton was pregnant again. Graves writes: “She was at this time in delicate health, looking forward to her confinement, and from the disturbed state of the country, and her extreme timidity of nature, had come to entertain a feeling of terror at the idea of remaining in a house so lonely in situation as the Observatory.” As mentioned, in January Lord Norbury had been killed, and Lord Northampton wrote: “[Lord Norbury’s] murder is quite involved in obscurity. It is so very doubtful what was the motive of his assassin that from it we can predicate nothing. How do we know even that the murderer was an Irishman at all? It has struck me that it is not impossible that the bullet might have been aimed, not at Lord Norbury, but at his agent, who was walking with him; and all agents in Ireland probably have enemies.” Also, according to Hankins, during the late 1830s there was a sharp increase in agrarian crime and terrorism in the countryside.

There was much political unrest, and in 1840 the Loyal National Repeal Association was formed, which aimed to separate Ireland from Great Britain.<sup>105</sup> De Vere writes in his autobiography: “A time was approaching in which themes such as occupied the great mind of Sir W.R. Hamilton were to lose their interest for all except a few, and all other utterances to be lost in one great political battle-cry. The cry was “Repeal of the Union”. The great democratic battle had begun.” Also Hamilton was concerned; one day De Vere found him practising with a pistol in case the Observatory would be attacked. He had “fixed a deal board on the garden wall, traced a black circle on it, and marked the centre of that circle by a blue periwinkle stuck in a hole. “Now you shall fire,” he said, “and we shall see which of us can get nearest to the mark.” I had never fired a pistol before, and fired almost at random. By an odd chance the bullet went through the heart of the periwinkle, leaving the outward leaves stuck upon the board. We were both amazed, and I considered myself a heaven-born genius in regard to this new accomplishment. Why will not the successful stop in time? I fired again and again, but never could hit the flower, the circular space, the board, or, I believe, the wall itself!”<sup>106</sup>

### Insecurity or unsafety

Indeed, built for observing the night skies the Observatory was situated at a very remote place, and although the book *Hints for Mothers* was written to take away a lot of the fears of childbirth, which it really does very well even to modern eyes, it seems

<sup>104</sup> See p. 81, [Graves, 1885, p. 301], [Graves, 1885, p. 303], [Graves, 1885, pp. 308-309].

<sup>105</sup> A short but explanatory biography of the founder of the Repeal Association, Daniel O’Connell, is given in Webb, A. (1878), *A Compendium of Irish Biography : Comprising Sketches of Distinguished Irishmen, Eminent Persons Connected with Ireland by Office or by Their Writing*. Dublin: M.H. Gill & Son. [www.libraryireland.com/biography/DanielOConnell.php](http://www.libraryireland.com/biography/DanielOConnell.php) [Accessed 28 Jun 2015].

<sup>106</sup> [Graves, 1885, p. 320], [Graves, 1885, p. 295], [Hankins, 1980, p. 124], [De Vere, 1897, p. 51], [De Vere, 1897, pp. 46-47]. De Vere does not give a date for this event.



to exude an atmosphere of being vulnerable when pregnant; even if Lady Hamilton did not read this book it can be assumed that that was the way pregnancies were looked upon, making it easily conceivable that she felt very unsafe.

Towards the end of 1839 Robinson, of Armagh Observatory, lost his wife, Elizabeth Isabelle Rambaut, after a long illness, and on the 10<sup>th</sup> of December Hamilton wrote: "I heard yesterday evening of the loss which you have recently sustained. I shall not pretend to console you. In all real and deep affliction, whether touching this world or the world to come, there is only one real, but it is also a strong, consolation, reserved for those who (as, I doubt not, you have done) have fled for refuge to lay hold on the hope set before them. It may, however, tend to produce some intellectual relief, if for some days (as many as you please) you will visit Lady Hamilton and me at this Observatory, and help me with some hints towards making it more like your own. We are entirely without visitors at present."<sup>107</sup>

Next to trying to comfort Robinson this letter seems to indicate that the Hamiltons would like to have visitors; perhaps Lady Hamilton would have felt more at ease at the Observatory having more people around. But it also indicates that she would like to see Robinson, and that is rather unexpected knowing that it was Robinson who had called her "an abstract idea". This is therefore perhaps a further indication that Robinson said that mainly because she did not come with Hamilton to the yearly meetings of the British Association as other wives did.

In the spring of 1840 lodgings were taken for her in Dublin. It is not clear how often Hamilton stayed with her there, but it is known that he did that since they were visited there by De Vere. The fact that they received visitors suggest that she was not "dangerously" ill in the sense of, for instance, a contagious disease, yet in September Hamilton wrote to Adare that he was worrying; "My anxiety about Lady Hamilton's health has made me very unfit for writing for many months past."

Lady Hamilton had also wanted to give birth in Dublin, but the lodgings "had to be vacated, and no others suitable could be found; return to the Observatory became necessary." Therefore, in August 1840 she temporarily returned to the Observatory, and there their daughter was born on the 11<sup>th</sup> of August. After giving birth Lady Hamilton remained upstairs for almost three weeks as was customary then; on the 30<sup>th</sup> of August Hamilton mentioned in a letter to De Vere that she came to his library: "It is very odd, but I feel as if I were now answering a letter of yours not very different in date from this of mine, so far as months and days are concerned, but happening to vary by three years from the present *Annus Domini*. Some tempest among my papers had tossed it up not long ago, and it chanced to be the first which caught the eye of Lady Hamilton this evening as, for the first time since her confinement, she visited my library, a little in the dusk; and she inquired of me: Whether I had heard from you since your last visit to us in Blessington-street? On turning to the letter it brought back vividly to my mind ... our short but pleasant wanderings and talkings in Wicklow and beside the Tolka, 'tis now three years ago. I am pretty sure that if we had again the same opportunity of talking and enjoying together, we should use it just as fully."

And Lady Hamilton was right to inquire; De Vere was clearly waiting for a sign of life: "A thousand thanks for your very welcome letter [...]. I congratulate you

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<sup>107</sup> See footnote 66 on p. 183, [Graves, 1885, pp. 307-308]. This again shows that having visitors was customary for the Hamiltons. Elizabeth Rambaut's birth year seems to be unknown.



with all my heart on the birth of your little daughter. I was beginning to grow quite uneasy at receiving no intelligence, when on looking into a newspaper, half in despair, the very first line I opened on informed me of the good news."

She stayed for the christening of the baby, and was apparently not so terrified that they just had to hurry it; Hamilton wrote to Adare on the 14<sup>th</sup> of September: "The baby is quite well, and is now nearly five weeks old, though not yet christened, on account of the distance of our parish church, to which we wish to take her for the purpose. ... We think of calling her Helen Eliza Amelia after her mother and her two godmothers, sisters of me and her mother." After the christening Lady Hamilton went to Scripplestown where she stayed for four months, until the spring of 1841. She was far from well; according to Hankins "Hamilton's letters all mention his concern for her, her sickness, and the fact that he had been able to do little work."<sup>108</sup>

### The death of Cousin Arthur

In December 1840 Cousin Arthur died; in May 1841 Hamilton wrote to Charles Boyton: "I was stunned with grief for the recent loss of our dear friend Arthur Hamilton, and had quite lost for the time (indeed I have not yet recovered) that "spring and elasticity of the mind" which you remarked to have begun to fail in him when you last met him here. His death was in my arms, and seemed at the moment sudden; for he had been receiving the Sacrament of the Lord's Supper about a quarter of an hour before, sitting in his arm chair, and surrounded by a little congregation of whom one was to him a stranger, the sister of Mr. Bushe, the rector of the parish, who officiated on the occasion; nor was the clergyman sent for suddenly, nor as to administer a Viaticum, but the appointment had been deliberately made a week beforehand, by my cousin himself, and almost as much for other delicate members of our family as for him. Indeed, it was nearly accidental (so far as anything is such) that I or anyone was in the drawing-room with Arthur at the moment of his death, so little was that event apprehended; for he had taken a short drive that morning, and had eaten something with relish not long before Mr. Bushe arrived, and rose to receive Miss Bushe on her being introduced to him by her brother. His last muscular action was that of grasping the consecrated cup, and his last conversation was with me on the subject of the ancient Liturgies, some of which he had read in the original Greek. My taking out administration appeared to me a duty, especially as I knew he wished it, but you may easily conceive that it has caused me much of labour and vexation."<sup>109</sup>

According to Graves, Cousin Arthur had been to Hamilton a "father, brother and friend in one. [...] His house in South Cumberland-street was the Dublin home of Hamilton and his sisters. Here, after their father's death, they met for holidays during their school period, and later on it was resorted to by them all when it served some need of business, or when his warm affection invited them either to visit him singly, or to meet around his hearth. [...] I can look back upon the pleasure of joining not unfrequently those family gatherings in Dublin, and at the Observatory; and I remember vividly how, by his countenance beaming with good-nature, his cordially

<sup>108</sup> [Graves, 1885, pp. 320-325], see also p. 186. For the three weeks see [Hankins, 1980, p. 125], for the necessity thereof p. 183.

<sup>109</sup> [Graves, 1889, p. 302], [Graves, 1885, p. 321], [Graves, 1885, p. 332]. At that time Rev. William Bushe (1776-1844) was rector of St. George's parish in Dublin.

sympathetic manner, and his combination of cheerful wit, solid sense, and a peculiarly engaging modesty, he added to the happiness of all about him. [...] Into his young kinsman's gifts, his progress, and his successes, he entered from the first with a loving admiration and delight, and he failed not, as time went on, to give him, in addition to affection and sympathy, the support of well-weighed counsel and manifold information, which, coming from a man of affairs and knowledge of the world, was often of great value to the inexperienced open-hearted idealist. No cloud ever passed over a connexion which had brightened his life, and he had the satisfaction of breathing his last in the arms of the human being who had been his chief pride and joy."

Like uncle James, who cared for Hamilton since he was three years old, Cousin Arthur thus seems to have been a father figure for him, and the "crushing sensation of disaster" Hamilton felt concerning deaths of blood-relations will certainly also have applied here. Graves writes that "Hamilton's sister Sydney remembers his having said some time afterwards that ever since the event the earth had seemed to him draped in black;" Cousin Arthur's death will have further aggravated the atmosphere at the Observatory. When Cousin Arthur died Lady Hamilton was at Scripplestown where Hamilton doubtlessly visited her often as he had done in Dublin, but already in fear due to the state of the country she may have felt even more unhappy, or insecure, due to his gloom.

In February 1841 Lady Hamilton left Scripplestown and went to England to live with a sister, without her husband and children.<sup>110</sup> It is very likely that the reason she stayed at Scripplestown the first months was to breastfeed her baby; in their social circles it was customary to hire a wet-nurse if the milk was not good enough, but also in those days the mother's milk will have had priority. It can thus be assumed that she only left Ireland after Helen Eliza was able to eat solid food, which is certainly safe for a healthy baby of six months.

Hamilton found her departure very difficult; now both Cousin Arthur and his wife were gone, and he was deeply worried about his wife's health. He had continued the letter, written to Boyton in May 1841, thus when Lady Hamilton was in England: "As to scientific work since Christmas, my share in it would be more aptly expressed by the word nothing than by any other single term; and indeed I have done very little, for a whole year past, that is, since Lady Hamilton's health obliged her to leave the Observatory."<sup>111</sup>

<sup>110</sup> [Graves, 1885, p. 332]. As mentioned earlier, see footnote 17 on p. 7, although to modern eyes it is strange that she left her children, it was more common then. In their times there were no objections on the basis of subsequent psychological problems of children since it was not known how weak bonding with their parents could influence their later lives. The focus of the doctors was on the quick recovery of the mother; for instance, in a manual for obstetrics it is argued that patients suffering from puerperal mania should be treated by separating them from their husbands, infants, or immediate relatives, which seems harsh, but it surely was an improvement over placing the mothers in asylums. See pp. 496-497 of Tyler Smith, W. (1858), *A Manual of Obstetrics: Theoretical and Practical*. London: John Churchill. <https://archive.org/details/manualofobstetri00smituoft>. But also, the Hamiltons do not seem to have taken their children with them on their long visit to Castle Ashby; that was probably a normal thing to do.

<sup>111</sup> [Graves, 1882, p. 28], [Bull, 1837, p. 149], [Graves, 1885, pp. 331-333], p. 38. It is easy to imagine that, having lost Cousin Arthur and Lady Hamilton being away, for Hamilton the earth seemed to be "draped in black." Yet Cousin Arthur was so important that despite his later happiness about his wife's return Hamilton felt these sombre feelings, apparently by fits and starts and perhaps stronger when he was not feeling well or otherwise bothered, until the summer of 1843, see p. 401.

## A very difficult year

The children stayed at the Observatory with Hamilton and the household, now with three young children, ran out of control, mainly because Lady Hamilton was expected to return soon. When it appeared that she would not, Hamilton's sister Sydney came to 'temporarily retrieve affairs', but Hamilton could hardly work without his wife. As mentioned, at the end of 1840 he had been very depressed; in the aforementioned letter to Boyton of May 1841 he had also written that around Christmas he had been "in deep dejection." In October 1841 Hamilton wrote to John Graves: "The illness of my wife has been much upon my spirits, and I have done little lately in the intellectual way, except think of the metaphysic of physics." The combination of her absence and the loss of Cousin Arthur must have been very difficult indeed.

In November Hamilton wrote to Adare, who was worried about the news that he was not doing well and had, next to responding to gossip about Lady Hamilton's absence, "expressed sympathy" and asked for information, that "though we have unhappily (through the state of her health) been much asunder of late, Lady Hamilton and I are in the constant habit of correspondence of the most affectionate kind" and added: "when she returns I am sure that even my health will be much better."<sup>112</sup>

It must have been a very difficult time for both the Hamiltons. That Hamilton found it difficult is clear from his letters, although "not being able" to work particularly meant not being able to do his solitary mathematical work; he was not inactive in any way during the year that she was away. He was, for instance, asked to help in a conflict between the Royal Dublin Society and the Irish Government; it took until after April before the problem was solved. Also in spring he did some work in "the region of æriform fluids," and in October Hamilton prepared his annual course of Lectures on Astronomy.<sup>113</sup>

In May the correspondence with De Morgan started, and it lasted until Hamilton's death in 1865. On the 8<sup>th</sup> of May 1841 De Morgan had sent Hamilton a note, "I hardly know whether you remember that we made a little personal acquaintance some twelve years ago when you were in London. I take this opportunity of leaving my card with you in the accompanying form by the post. I shall be very glad to see the Theory of Triplets hinted at in your Paper on Algebra; time-triplets or space-triplets, I don't care which." And with the note he sent his still unpublished paper, 'On the Foundation of Algebra', in which he comments on "Sir William Hamilton['s] very original and methodical memoir on algebra as the science of pure time."<sup>114</sup> Hamilton reacted: "I have within these few minutes received your Paper 'On the Foundation of Algebra', and have hastily cast my eye over it, intending to read and think about it afterwards. The handsome manner in which you have, there and elsewhere, expressed yourself respecting me would render it impossible for me to be offended at the expression of some difference of opinion, even if such difference should turn out to be grave and irremovable."

<sup>112</sup> [Graves, 1885, pp. 332-334], [Graves, 1885, p. 328], [Graves, 1885, p. 354]

<sup>113</sup> [Graves, 1885, p. 340], [Graves, 1885, p. 349]

<sup>114</sup> De Morgan, A. (1839), On the Foundation of Algebra. *Transactions of the Cambridge Philosophical Society*, 7: 173-187. <https://archive.org/details/transactionsofca07camb>. Hamilton, W.R. (1837), Theory of Conjugate Functions, or Algebraic Couples; with a Preliminary and Elementary Essay on Algebra as the Science of Pure Time. *Transactions of the Royal Irish Academy*, 17 (1): 293-422. <https://archive.org/details/transactionsofro17iris>.

Around that time Hamilton also contemplated resigning from the presidency of the Royal Irish Academy: "It will be remembered that at the time of his election to the Presidency of the Royal Irish Academy, Hamilton, without binding himself by any engagement, conceived the idea [...] of resigning this distinction after a period, so that it might before long devolve upon his friend [Professor Lloyd]. The idea now became active. Several circumstances conspired towards this result. He had for nearly four years occupied the Chair, and had abundantly given proof of his effectiveness as President, rendering, as such, great services to the Academy: at the same time he was aware that among the members there still remained an element hostile to his reign: and he was now depressed in spirits, and more disposed to carry on his studies in quiet than to continue to devote so much energy as was requisite to the direction and control of the Academy's affairs."

Hamilton was serious about this idea since in December 1841 he wrote to Adare: "One important source of increased leisure I look forward to from a change of position, which, though from no personal motive, I am likely to make in March, by resigning the Chair of the Academy." But in March 1842 he wrote to Adare that "the Council have passed a resolution which amounts to not accepting my most sincerely tendered resignation." Hamilton would remain president until 1846, but he resolved to do that in a somewhat less time consuming way.<sup>115</sup>

### Ill and far from home

Although Hamilton had claimed a "correspondence of the most affectionate kind," from Lady Hamilton's time in England only one letter written by her survived, leading Hankins to the remark: "If the affectionate correspondence did indeed exist, it has been lost." The letter is "a pathetic one, obviously written under the strain of illness. It contains a minimum of business affairs and ends: "I hope my darling children are well and that Baby is still continuing her lessons in walking. I have got such a palpitation I must lay down the pen." She must have had a very difficult time, being ill and far away from her husband and children.

Hamilton did not attend the meeting of the British Association in Plymouth at the end of July 1841, and Graves writes: "I find that so late as the 21st of that month it was Hamilton's intention to attend it in company with his friends Professor Lloyd and Dr. Robinson. The record of its proceedings in the Athenæum shows, however, that this intention was not fulfilled; but a brief reference to his having been in England contained in the letter given below, and one or two other circumstances, have led me to infer that the illness of Lady Hamilton called him suddenly away at this time to visit her at her sister's, near Shrewsbury." In the letter, written to Graves on the 6<sup>th</sup> of August 1841, Hamilton wrote: "Unless Lady Hamilton shall be decidedly worse or better, I hardly think of visiting England again, as, besides the time, the expense is some object to me now." Lady Hamilton must indeed have been very ill but perhaps his visit had helped; on the 16<sup>th</sup> of August Hamilton wrote to Graves: "I feel quite in spirits at present, and therefore write to you. They arise partly from my having some reason to think that Lady Hamilton was a little better, and partly from my having in some degree recovered a train of intellectual activity."<sup>116</sup>

<sup>115</sup> [Graves, 1885, pp. 341-342], [Graves, 1885, p. 351], [Graves, 1885, p. 362]

<sup>116</sup> [Hankins, 1980, p. 125], [Graves, 1885, pp. 344-345]

### Daily life at the Observatory

And also things at the Observatory were not just bad all the time although it may look like it; daily life continued. The children did not miss both parents since Hamilton was at home most of the time and he was an attached father; in December 1841 he wrote to Adare: "My children are all well, though Archy had an attack of scarlatina about two months ago. The little daughter has grown quite fond of me, and enjoys visiting my library."<sup>117</sup> Sydney was running the household and the children were taken care of by her and by the personnel; they had nursery-maids, as was completely normal in those days for people in their circles, and most likely they were attached to them also. One of them, Mrs. Cooney, is named specifically when in 1836 Hamilton proudly wrote to Adare that William Edwin, who "always reserves the first person for his Father [...] sometimes says, "I may carry poor P.," meaning that his Father may carry him; and on my asking him the other day, in the garden, should Mrs. Cooney take him in her arms, he said, with the same meaning, "Me!" while he turned with great energy of gesture to his Father."<sup>118</sup> And of course, there was always the astronomy assistant Thompson who worked there longer than Hamilton himself.

### Graves' article

In 1841, when Hamilton was married for eight years, Graves wrote an article about him in the *Dublin University Magazine*, to be published in January 1842; a short biographical sketch.<sup>119</sup> Graves was asked by Hamilton to write it after he "had heard from the publisher of the *Dublin University Magazine* that he must take his place in the series of memoirs of distinguished Irishmen. [...] This led to my paying him a visit at the Observatory for the purpose of gathering facts."

In the article, Graves wrote about Hamilton's life and work, and about Hamilton's home life he wrote: "[Since his marriage his home has] been enriched by the birth of three children. [The Observatory] has been a centre to which the high and various endowments of its occupant have attracted, not only the scientific stranger, but numbers from a wide circle, whose moral and intellectual tendencies have been of a congenial nature; and consequently few scenes have been oftener brightened by the mutual kindlings of genius, by the rich interchange of thought, of imagination, and of wit, than the Observatory at Dunsink. These social enjoyments are, however, speaking strictly, of course occasional only; for, usually, laborious study holds there its reign, and displays its insignia."<sup>120</sup>

Graves was asked to write this article in the summer of 1841, when Lady Hamilton was away from home for more than a year already, and it was published in the beginning of 1842, around the time she came home. It must have been odd in the eyes of the people in Dublin, such a happy scenery while everyone knew that Lady Hamilton had been away for such a long time. Yet, it can be surmised that in 1841 Graves wrote about the 'normal' situation at the Observatory, perhaps just hoping that it would all turn out for the best, and accordingly writing this perhaps a bit too happy article.

<sup>117</sup> [Graves, 1885, p. 356]. Helen Eliza was sixteen months old then.

<sup>118</sup> [Graves, 1885, p. 183]. Nothing further is known about who Mrs. Cooney was; her name is not given in the index.

<sup>119</sup> [Graves, 1842]

<sup>120</sup> [Graves, 1885, p. 344], [Graves, 1842, p. 100]

### 6.5.1 Home again

“Early in January” Hamilton went to England to finally bring Lady Hamilton, whose health had much improved, back home; he seems to have been delighted at the anticipation of having her home again. On the 1<sup>st</sup> of January 1842 he wrote in a letter to Graves, while contemplating his sometimes large intervals between letters:<sup>121</sup> “We must exercise [...] a faith in friendship, and not allow too much weight to mere external phenomena. [...] Except in some very rare case, such as that of a wife, for even a temporary and most innocent separation from whom it is a kind of duty to grieve, I have observed that those friends have been most dear to and most truly intimate with me, whom I could rejoin after a long interval with a feeling as if we had met but yesterday. Perhaps, indeed, this feeling may be the nature of that which Spenser has assigned to the “Heavenly Una with her milk-white Lamb.” ...

His lovely words her seemed due recompense  
Of all her passéd pains: one loving hour  
For many years of sorrow can dispense:  
A dram of sweet is worth a pound of sour:  
She has forgot how many a woeful stowre  
For him she late endured; she speaks no more  
Of past: true is that true love hath no power  
To looken back; his eyes be fixt before.  
Before her stands her knight, for whom she toiled so sore.

“And I acknowledge, on reflection, that my own feelings on meeting with my wife again after my own, not usually long, absences, have been much of the same character.”<sup>122</sup> According to Graves, after his wife’s return Hamilton “immediately, with renewed cheerfulness, resumed his mathematical studies.”

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<sup>121</sup> [Graves, 1885, p. 357], [Graves, 1885, p. 361]

<sup>122</sup> [Graves, 1885, p. 358]





## Chapter 7

# Later years

*Since not much is said about the marriage after Lady Hamilton came home in 1842, the years from 1842 until 1854 will largely be skipped now. Next to the fact that Hamilton did not write letters to his wife when they both were at home, the marriage seems to have been well. But when a marriage is going well while outside the marriage very emotional events take place, these events will predominate in an over-all description, making it preferable to discuss these years separately. The years 1842 until 1848 appear in chapter 9 and 10; due to their most important events the years 1848 until 1854 will be described in chapter 8; the discussion about Hamilton's use of alcohol during the years 1842 until 1854 can be found in chapter 10.*

In September 1854, while staying for the night with Lloyd and his wife Dorothea Bulwer (ca 1820-1905), who then lived “near the entrance of the Dargle” at Kilcronney, Hamilton wrote a letter to Thomas Disney from which it can be derived that the marriage was well. In the letter Hamilton remarked that his poetry was “an assistance towards preserving for myself, and sometimes communicating to friends, a few records of the pleasurable or painful feelings of what has been, upon the whole, a studious and happy life.”<sup>1</sup> And to De Vere he wrote in September 1855: “I have been as happy in my own marriage as I expected, and more than I deserved to be.”

During the skipped years Hamilton's life was periodically troubled, but daily life continued; despite stormy events bringing along strong feelings Hamilton was mostly at home, being an attached husband, an affectionate father and a laborious, extremely highly-gifted scientist. In 1843 he found his quaternions, and the books he wrote about them, both of them enormous as regards to the number of pages and to the content with its very many new discoveries, can be proof that he mostly just lived his life. Between emotional events weeks, or months, or even years went by, yet everything seems to be connected in one stream of emotions and events if it is written out all together at once; the long periods of quiet daily life are quickly forgotten. And since Hamilton could separate his feelings for the three women in his life and was very aware of his ability to do so,<sup>2</sup> it is more insightful to also do that in this essay, instead of keeping it chronologically correct.

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<sup>1</sup> [Graves, 1889, pp. 7-8], p. 307

<sup>2</sup> See p. 145. For the 1855 correspondence with De Vere see p. 311.

### An attached father

Only very occasionally Graves gives brief insights into the daily life of the Hamiltons and their growing children, such as, for instance, when in January 1852 Hamilton wrote to De Morgan: "I was to bring my three children, on the last night of the year, to a sort of Christmas festivity at the house of my neighbour and namesake, James Hans Hamilton [(1810-1863)] (M.P. for the county), where I pulled the little sweatmeat from a tree for your unknown young friend, and presented my own little daughter to Lady Clarendon [(1810-1874)]. I must say that I enjoyed the evening at Abbotstown; although I was very well inclined to come away at midnight, till overpersuaded by your grave-looking acquaintance, my eldest boy, William Edwin, who thought we might afford another hour or two, in which opinion I could see that my little Helen joined, and even an intermediate brother, Archibald Henry."<sup>3</sup>

Where in the first years of William Edwin's life he had been at Hamilton's side the most, with her brothers almost grown-up that place was for Helen Eliza now. Hamilton seems to have had a special relationship with his daughter, which was perhaps rooted in the fact that in her first year Lady Hamilton was in England, having made him in fact a single parent then. Furthermore, she was, like her father, mostly at home since in those days girls did not go to school, or perhaps not to secondary school.<sup>4</sup> It can be read that Hamilton sometimes pitied her for that; in June 1854, when she was thirteen, he wrote to Lady Campbell: "I have played a few games of draughts this morning with my daughter – dear, sweet, patient child. She has very few sources of amusement, but she enjoys flowers, the garden, and the Bible."<sup>5</sup> He even seems to have tried to make life happier for her by drawing her into his work; Wayman mentions, in a 1966 article about Hamilton's descendants, that Helen Eliza, next to helping her father with "entertainment of distinguished visitors" and being a "charming and intelligent companion," also "helped him with calculations."

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<sup>3</sup> [Graves, 1889, p. 311]. From Hamilton's use of the words: "your grave-looking acquaintance, my eldest boy," it can be derived that De Morgan had met William Edwin, and indeed, William Edwin visited a grammar school in Clapham, London; according to Hankins, [Hankins, 1980, p. 429 note 39], he was sent there in 1846, thus being twelve years old. William Edwin wrote in his *Peeps* that he "left school for good" and came back to the Observatory again when he was thirteen, he thus was in London for a year. [Hamilton Jr, 1895, p. 2]. Yet he mentions that "another schoolmate was William (1833-1917), the eldest son of Sir John Herschel, at whose country seat, Collingwood in Kent, I used to spend the short holidays," see p. 370. De Morgan and Herschel did know each other well; perhaps De Morgan had met William Edwin through them. William Edwin would again live in London, even next-door to De Morgan, from late 1856, when De Morgan mentioned having seen him, see [Graves, 1889, p. 510], until June 1857 since De Morgan then wrote: "I am very sorry that we saw so little of your son. He is an Irishman – loves fun – and sticks to business – three capital things to come together. I have known the first and second come together often. I have known the third absent." [Graves, 1889, p. 517]. It is unclear who "your unknown young friend" was. But De Morgan understood since he does not seem to have commented on it; he reacted: "Your statement of the fact that your children made you stay longer than you intended is one I could confirm by the like. Shall we publish the joint discovery that there is no getting young people away from Christmas parties? Though you communicated it first, I can prove that I knew it." [Graves, 1889, p. 313].

<sup>4</sup> Miss Sarah Lawrence ran a girls' school in Liverpool, from which it is known that some girls did go to school, see also p. 20, but from Graves' biography it is unclear when or why they did or did not. Perhaps an indication of the spirit of those times can be found in an 1853 letter from De Morgan when he wrote about having had a mathematical correspondence with Lady Lovelace (1815-1852) and added: "Her father would have sworn at her, if he could have known that she had a mathematical head." [Graves, 1889, p. 451].

<sup>5</sup> [Graves, 1889, p. 19]

The fact that Helen Eliza was able to calculate although she did not go to school means that she either did go to primary school, or she learned it at home. There are indeed indications that Hamilton taught her, although not in the sense of actually home-schooling her; in 1849 Hamilton wrote to De Morgan: “Many thanks for your figure, which I am sure will be worth studying. A little daughter of mine, about nine years old, who has a formula for anything new she learns from me, “Deeply interesting, combined with being deeply curious and instructive,” after gazing for some time on your “walls of Troy” – so my schoolboy companions used to call a labyrinth on a slate or paper – commenced her usual exclamation, and got as far as “Deeply interesting, combined with being deeply curious”; but there stopped short, and said, “I cannot add, and instructive, for I do not understand it at all.”” And in 1854 Hamilton wrote to De Morgan “I have been showing my child, Helen (what is your daughter’s name?), at her own wish, ever so many astronomical things to-day – not that she understands them all.”<sup>6</sup>

Hamilton was very happy with having a daughter; on the 17<sup>th</sup> of December 1853 he wrote to De Morgan, whose daughter was ill, “Your note of the 15th ought perhaps to have reached me yesterday instead of this morning; and, if so, I should sooner have expressed my sympathy in your parental anxiety for your daughter, at an interesting time of her life, and important crisis of her health. You know how apt I am to talk, at least to you (for I am somewhat more guarded with people in general), about my own daughter. A few years ago she was attacked by scarlatina, and though I was told that the sickness was infectious, I could not be kept out of her sick-room. [...] I am apt to estimate the happiness of any friend of mine by the instance of his or her having a daughter. Of course the most exquisite *unhappiness* might be derived from such a source: that alternative we may dismiss from thought.” Sadly, a few days later, on the 23<sup>rd</sup> of December, De Morgan’s daughter died of her illness, only sixteen years old.<sup>7</sup>

## The Great Exhibition and meeting the Queen

Although Lady Hamilton seems to have withdrawn from eminent guests, and hardly accompanied Hamilton to official occasions, on the 7<sup>th</sup> of September 1853 Hamilton wrote to De Morgan, as mentioned briefly in the foregoing chapter, that he had successfully persuaded her to come with him to meet the Queen. “The Royal visit of last week occupied nearly all the attention and interest of us Eblanians,<sup>8</sup> but I was glad

<sup>6</sup> [Wayman, 1966], [Graves, 1889, p. 282]. The figure, which indeed slightly resembles a labyrinth, can be seen on p. 140 of De Morgan, A. (1850), Extension of the word Area. *The Cambridge and Dublin Mathematical Journal*, 5: 139-142. <https://archive.org/details/cambridgeanddub02unkngoog>.

<sup>7</sup> [Graves, 1889, pp. 469-470]

<sup>8</sup> On p. 313 of the 1846 translation of the *Annals of Ireland*, written in the seventeenth century and based on much older texts, it can be read: “Ancient Inhabitants – [...] On the Map of Ancient Ireland, by the Greek geographer Ptolemy, in the second century, [...] the Eblanoi or Eblani are placed on the territory which now forms the great plains of Dublin, and part of Meath or ancient Bregia, and the chief city of the Eblanians is called by Ptolemy Eblana, a name probably derived from the Irish word Dubh-Linn, the ancient name of Dublin, which might have been changed by the Greek writer into Dublana or Eblana. [...] The word Dubh-Linn signifies the black or dark pool, and is considered to have originated from the black or boggy marshes of the Liffey, near which the city was founded.” Connellan, O. (1846), *The Annals of Ireland, translated from The Original Irish of The Four Masters*. Dublin: Published by Bryan Geraghty. <https://archive.org/details/annalsofirreland00ocle>.

to receive from a postman, who was walking out, a letter from you about ladies, and comets, &c., as I was on my way to join the Provost and others of T.C.D., in my doctor's robe, on the Monday morning of the Queen's entry – of which we saw very little this time. Four years ago the College erected a large platform, where we could all see and be seen, comfortably: but our fine gowns, and those of any lady-acquaintances of ours, were quite thrown away in 1853! I fared not much better on the Tuesday morning, as a season ticket-holder in the Exhibition, but had the consolation to think that I had lost my two or three good places, at various stages of the Queen's progress, by yielding them to ladies: and when Her Majesty was gone, I spent (what I had not so completely done before) an entire unbroken day in the beautiful and curious building.<sup>9</sup> On Wednesday morning I received a card of invitation for Lady Hamilton and myself to meet the Queen and Prince at the Viceregal Lodge on the evening of that day, and I persuaded my wife to come, though she is very shy about going out. There seemed to be no actual presentations, but it was a pleasure to see the Queen by candlelight, to hear the music which was performed, and to meet acquaintances. Lord St. Germans [(1798-1877), the acting Lord Lieutenant], when Her Majesty had retired, came up to me, and gave me to understand that the Prince wished to receive personally a copy of my book [*Lectures on Quaternions*, published in July 1853], which I had proposed to send him through his secretary: and on the Saturday, about 3 o'clock, I had a pleasant interview (which was strictly a tête-a-tête one) with his Royal Highness for that purpose. There's gossip for you and Mrs. De Morgan.”<sup>10</sup>

De Morgan, born in India, replied: “The gossip about the Queen is all new. I never saw a king or a queen in my life – except Louis Philippe just after his accession. I never saw the Duke of Wellington but once for a few minutes in the House of Lords – the only time I was ever there in my life. I never was in the House of Commons – or in the Tower – or in Westminster Abbey. I spent only one hour and three-quarters in the Great Exhibition. I never attended a meeting of the Royal Society or British Association. I never got further north than Cambridge, and never while at Cambridge penetrated to the northern extremity of the town. So much for me as a sight-seer and traveller. And yet I have been in three quarters of the globe – in arms – not as a combatant, but as an infant.” Apparently, not only Lady Hamilton was a “recluse”.

### Joking about abstract ideas

Lady Hamilton's sister and her husband, Mr. and Mrs. Rathborne of Dunsinea, as well as her sister Mrs. Rathborne of Scripplestown, had died before 1850, but the

<sup>9</sup> From the 12<sup>th</sup> of May until the 31<sup>st</sup> of October 1853 the ‘Great Industrial Exhibition’ was held in Dublin, and it was officially visited by the Queen and the Prince Consort. About the ‘Irish Industrial Exhibition Building’ it was said that “visitors “were struck with the richness and splendour of the Building more almost than by any of the objects which it contained.” The critics enjoyed the magnificent building for “the rapidity with which it was erected, for the sufficiency of its plans, and for the enormous mass of its carefully worked materials.”” *Wikipedia*, Great Industrial Exhibition (1853), [https://en.wikipedia.org/wiki/Great\\_Industrial\\_Exhibition\\_\(1853\)](https://en.wikipedia.org/wiki/Great_Industrial_Exhibition_(1853)), and p. 37 of the original *Catalogue*; Sproule, J. (ed.) (1854), *The Irish Industrial Exhibition of 1853: A Detailed Catalogue of Its Contents, with Critical Dissertations, Statistical Information, &c.*. Dublin: James M<sup>c</sup>Glashan. <https://archive.org/details/irishindustrial00sprogoog>. [Both websites accessed 25 Oct 2015]. Hamilton is mentioned in the *Catalogue* on p. xii, as one of the people who “proposed and seconded several resolutions” in a public meeting which was held in July 1853 with the aim to decide how to honour “the Founder of the Exhibition” Mr. Dargan (1799-1867).

<sup>10</sup> [Graves, 1885, pp. 688-689]

Hamiltons seem to have had frequent contact with family and neighbours such as John Rathborne, one of their nephews who still lived at Dunsinea, and the niece who had woven the silken purse, Kate Rathborne. But while seeing their family and neighbouring friends, as regards to upper class society the Hamiltons led a rather secluded life; visits like the three-week stay at Castle Ashby were never again paid.

That, of course, did not go unnoticed; there are hints in Graves' biography indicating that the Hamiltons were heavily gossiped about in Dublin.<sup>11</sup> In those days wives of prominent men were supposed to ensure that they, as a couple, would fit in the social circles they were expected to fit in, or enter the circles they wanted to get into, which included frequently inviting guests or making sure they were invited guests themselves. But in Graves' biography Lady Hamilton taking care of guests is mentioned explicitly only a few times, for instance when in October 1854, perhaps not being "eminent" guests but nonetheless important, a group of "deaf and dumb boys" who were shown the "telescopes and some of the heavenly bodies" had sent an, as Hamilton expressed it, "most delightful and characteristic letter of thanks. In simple terms it expressed admiration of the proofs of God's Almighty power, and gratitude for the bread, jam, coffee, and milk supplied to them by Lady Hamilton." And again, on the 4<sup>th</sup> of May 1855, Hamilton wrote to De Morgan that Mrs. Wilde "paid me, on Saturday last, a visit of three hours and a-half, it being my second time of seeing her."<sup>12</sup> You must observe, however, that I had made it a sort of open day, and had several other guests, including a troop of deaf and dumb boys, for whom, and for the others, Lady Hamilton, though prevented by a heavy cold from being disposed to appear herself, had laid out a comfortable luncheon, and allowed her daughter to be present."<sup>13</sup> Still, Hankins describes how in October 1833, when Lord Adare visited, she wanted to have one of the servants from Bayly Farm come to supplement the Observatory staff, and from Wayman's book about Dunsink Observatory it is known that she once complained about De Vere's servants.<sup>14</sup> She thus did take care of guests, yet not with the purpose to enter, or fit in, the expected social circles.

Hamilton clearly did not have any problems with her apparent habit to withdraw when he was visited by his fellow scientists; already in 1831 he had been aware that his conversations with them would not be very entertaining for most people, writing to Mrs. Rathborne that he could not invite her to dinner because she would, "in so many hours of scientific conversation," "perhaps grow tired of us Professors, a result which I should greatly regret."<sup>15</sup> Moreover, he had agreed to his wife's marriage condition that they would live a retired life at the Observatory and indeed, at the 1854 meeting of the British Association in Liverpool, to which he was accompanied by Archibald, he even joked about it in a speech and told her about that in a letter.

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<sup>11</sup> The main reasons for gossip seem to have been Lady Hamilton's three long absences from home and from official meetings in general, and Hamilton's for those days very unorthodox way of life, see chapter 9 and chapter 10.

<sup>12</sup> [Graves, 1889, p. 17], [Graves, 1889, pp. 496-497]. Hamilton had declined Mrs. Wilde's request to be godfather to her son; "she asked me to be a godfather, perhaps because I was so to a grandson of Wordsworth the Poet and because she is an admirer of Wordsworth." To which he added: "But it seems that I have not fallen entirely out of favour thereby, for she paid me [this visit]."

<sup>13</sup> [Graves, 1889, p. 497]. Next to the fact that this sort of activities for popularizing astronomy are mentioned only a few times in the biography although that must have happened quite regularly, it can also be seen that at home Lady Hamilton did act as a mother with authority.

<sup>14</sup> See p. 173, p. 175.

<sup>15</sup> See p. 130.

In the summer before the meeting a “cheer” had been given to “Hamilton’s spirits by two events: in July the living of Loughcrew was, through his influence, conferred by the Lord Lieutenant, Earl De Grey [(1781-1859)], on the Rev. James Alexander Hamilton [(ca 1825- ..)], son of the uncle to whom he had been so deeply indebted for his education;<sup>16</sup> and in August the Board of Trinity College relieved him of all remaining liability for the expense of printing the *Lectures on Quaternions*.” The book had been published a year earlier and the printing had been costly. According to Graves the Board “had previously contributed 200 towards this object, but a balance of 100 remained due, and the prospect of having to pay this sum was the source to Hamilton of much anxiety.” It is indeed easy to imagine that losing one eighth of his yearly income on a work which he, and many others, regarded as adding to the renown of the College and Ireland, must have been very hard to take. “His cause was warmly advocated by Dr. [Thomas] Luby [(ca 1800-1870)], Dr. [James] Todd [(1805-1869)], and Dr. Lloyd, and the vote in favour of the grant was unanimous.”<sup>17</sup>

Hamilton thus was in good spirits, and the speech containing the joke about his wife is given by Graves a few pages thereafter, thus in the second volume while describing 1854. But only in an additional chapter in the third volume, called ‘A Gathering of Fragments’, the letter to Lady Hamilton telling her about the joke is given, after an “omitted item”, the sonnet Hamilton wrote in January 1835 while being happy to go back to Bayly Farm and see his family again.<sup>18</sup> After giving this sonnet Graves again criticizes Lady Hamilton, as if afraid that his readers have not yet understood his message: “This sonnet is a strong proof of the affectionate feeling which Hamilton never ceased to cherish towards his wife. Other instances have been given. Yet it cannot be denied that the whole course of their married life proved the justness

<sup>16</sup> In 1847 uncle James had died, and in his later years he had not been doing well financially. In 1843 Hamilton had been very anxious for him and “exerted himself in his behalf” almost to the point of “importunity”, but “with little or no fruit hitherto.” [Graves, 1885, pp. 406-407], see also p. 349. This may have led him to also use his influence for his cousin James Hamilton, uncle James’ son. The birth and death years of James Hamilton seem to be unknown. A lower limit for his birth year is 1821: on the website of *The National Archives of Ireland* uncle James’ household can be found in the ‘Census year 1821’: ‘Residents of a house 215 in Manorland, Trim On The North Side Of The Boyne’. The household consisted of uncle James (44), Clerk Rector Of Armorish, and aunt Elizabeth (29); three daughters: Elizabeth (6), Grace (3) and Mary (1); three House Servants: Elizabeth Hughes (25), Mary Morgan (20) and Mary Burke (18); ‘Niece’ and ‘Spinster’ Grace Hamilton (17); and three boys: John Butler (17) and William Hamilton (15), both ‘A Pupil in Said School’, and Abraham Bradley (9), ‘At School’. Obviously, James Alexander had not been born yet. [www.census.nationalarchives.ie/pages/1821/Meath/Trim/Manorland/215](http://www.census.nationalarchives.ie/pages/1821/Meath/Trim/Manorland/215). James was ordained in 1847, see p. 41 of Charles, J. (1868), *The Irish Church Directory for 1868*. Dublin: J. Charles. <https://archive.org/details/irishchurchdirec00char>. According to Graves in 1882 he was Rector of Loughcrew, [Graves, 1882, p. xix], but in 1889 someone else was mentioned as Rector there, see p. 258 of *The Journal of the Royal Historical and Archaeological Association of Ireland*, Vol IX. – Part I. Fourth Series. <https://archive.org/details/journalofroyalso19royauoft>. [Websites accessed 28 Nov 2015].

<sup>17</sup> [Graves, 1889, p. 6]. Graves was mistaken about who was the acting Lord Lieutenant then; from 1841 until 1843 it was Earl De Grey, from 1853 until 1855 the Earl of St. Germans. Dr. Luby, who had in 1840 married Jane Rathborne, one of the Dunsinea nieces, see [www.monchique.com/Ochanoff/ohanov/ochanoff/2545.htm](http://www.monchique.com/Ochanoff/ohanov/ochanoff/2545.htm) [Accessed 21 Jul 2015], “had previously written to Hamilton, saying: “I cannot conceive that the Board would suffer you to be at any loss by the publication of a work which is so noble a monument of human science, and which does so much honour to our University.”” In 1831 Hamilton’s income was £700, but that included Thompson’s income, £100, and that of a Gardener, £20. [Graves, 1882, p. 434], see also p. 446. In his later years his income was about £600, [Hankins, 1980, p. 377], to which was added a £200 pension he received as a result of Graves’ 1842 article, see p. 402.

<sup>18</sup> For an earlier discussion of a part of the letter see p. 176, for the sonnet see p. 180.



of her early foreboding, arising from a sense of weak health, both of body and mind, that she was not fitted to sustain the burden of duties properly devolving upon a wife in her position." After which he can continue to praise Hamilton again, for having been a good husband: "The following letter I impart to the reader, principally because, written when he had been more than twenty years her husband, it manifests the continued warmth of his conjugal affection, and the considerate thoughtfulness of a true pater familias, and, at the same time, shows how he could even to herself playfully allude to her extreme shyness and retiredness. I remember hearing Dr. Lloyd say that he had been often at the Observatory, but had never seen Lady Hamilton."<sup>19</sup>

Hamilton's joke concerned the remark once made by Dr. Robinson of Armagh Observatory, that Lady Hamilton was "an abstract idea", and on the 27<sup>th</sup> of September 1854 Hamilton wrote her the letter Graves alluded to, in which he told her about it: "My Dearest Helen – The Association has just been adjourned to Glasgow, to which place I had moved, in the General Committee, that we should go next year. They got me up to make another speech, just now, proposing thanks to the foreigners [...]. I mentioned my having learned mathematics chiefly from French books, but said that the authors of them, as I had never visited Paris, had appeared to me almost as abstract ideas."<sup>20</sup> But I amused the audience by turning to the fat little Abbé Moigno [(1804-1884)], [...] who was sitting near me, and by saying, "For instance I had thought the Abbé here to be an abstract idea: but I think that you will all agree with me in considering him to be a very concrete and a very pleasant body!"<sup>21</sup>

Graves gives, in the main part of the biography, the speech in full; he found it, in the form of a newspaper clipping from the *Morning Post* of the 30<sup>th</sup> of September 1854, between Hamilton's papers. In this report to Hamilton's joke a remark is added: "This allusion to the fat little Abbé Moigno produced great laughter at the moment." Doubtlessly knowing that his speech would be given in the newspapers, Hamilton must have counted heavily on his wife to understand that his remarks were jocular; a clear sign of his trust in her and her sense of humour. And it cannot be known from the biography whether the remark about her was common knowledge; if it was she must have been quite indifferent to the gossip about her habits, or perhaps constraints; if it was not and should not become so, he must, next to trusting her, also have trusted the friends who did recognize the allusion.

Hamilton continued the letter: "Arch promises you that he will not become a "damp unpleasant body", if he can help it. But he ought to have written to you ere this. Indeed I know that he did begin a letter on the day of our arrival here, but mislaid it among my papers. He seems to have enjoyed himself greatly. I am quite tired after all the meetings I have attended to-day, and yet hope to attend another to-night, after resting a little at my lodgings. I cannot write to-day to anyone but you, but please to tell dear Moo [Graves remarks: pet-name of his daughter] that I received her letter, and that our lessons in French have been of the greatest use to me. Give love to William also, and believe me to remain your very affectionate husband, W.R. Hamilton. Please write to me immediately, or let Will or Moo do so, directing as before. Arch and I will probably start for the Lakes on Saturday."<sup>21</sup>

<sup>19</sup> [Graves, 1889, p. 233]. For the discussion about Lady Hamilton's "shyness" see p. 176.

<sup>20</sup> In the biography hereafter a remark is written between curved brackets: "You know that Lady Hamilton was once called by Dr. Robinson "an abstract idea"." But it is absolutely unclear who added this remark, and to whom it was directed.

<sup>21</sup> [Graves, 1889, pp. 233-234]. For the speech see [Graves, 1889, p. 11]. Hamilton asking his wife



### Visit to the Lake Country

After the meeting in Liverpool “with his son Archibald as his companion, [Hamilton] proceeded to the Lake Country on a visit to myself and Mrs. Graves, then residing at Dovenest on Windermere. During this visit [...] he renewed a long discontinued intercourse with his old friends Mr. and Mrs. Richard Napier [(1787-1868) and (.. -1867)],<sup>22</sup> then sojourning near Rydal.” Hamilton seems to have been in good spirits indeed; he wrote on the 6<sup>th</sup> of October, while staying at Graves’ house, a letter to Lady Campbell to which Graves comments: “A letter, written in a somewhat playful spirit, to his old friend Lady Campbell, discovers in Hamilton the elements which were deeply seated in him of a reverent admiration for woman showing itself in the form of a grave, old-fashioned, gallantry.”

Hamilton wrote: “Will you believe that I sat next a gentleman here, at dinner yesterday, who asked me if I had lately seen “Pamela Campbell”? a name by which you know that I never presumed to call you. You will think that the man must have been very impertinent: but will, I suppose, forgive him and me, when I tell you that he was Mr. Richard Napier [...] who is, I believe, a cousin of yours, and who is pleased to claim an acquaintance with me of thirty years’ standing. Again, at dinner to-day, but at another house, your name was mentioned by a lady – and a very old and very charming one – who told me that she remembered Sir Guy Campbell since he was “that height” (about the height of the table), and that she knew he had married a daughter of Lord Edward Fitzgerald. I said that another Guy [(1824-1853)], son of her friend, had died last year in India, and that his mother had scarcely yet recovered from the grief occasioned by the loss. She inquired whether you had any other children, and I mentioned Sir Edward and your daughters. She wanted then to know whether they had inherited the beauty of their parents. I said that I had always heard that the married daughters, of whom alone I should presume to speak, had been quite “the rage”, for their beauty, &c., at the Irish Court, and elsewhere.<sup>23</sup> It is time that I should tell you at least the name of the lady who thus catechised me. She is Mrs. [Elizabeth] Fletcher of Lancrigg [(1770-1858)], and she is in her 85th year. She took my arm, when we were going in to dinner, and her conversation was really delightful. She remembers well and vividly many of the remarkable characters of the latter

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to write “or let Will or Moo do so” might indicate that she perhaps simply did not like to write letters, thereby explaining why there are so few letters written by her.

<sup>22</sup> Graves remarks, [Graves, 1882, p. 155], that Mrs. [Anna Louisa] Napier wrote *Woman’s Rights and Duties considered with relation to their Influence on Society and on her own Condition*, 2 vols. London: John W. Parker. <https://archive.org/details/womansrightsanddd02unknuoft>. It has been published anonymously; the author is just given as “A Woman”. In the book Lady Louisa Conolly, née Lennox (1743-1821) is described, an aunt of Richard Napier. According to Graves she was an example of “female excellence” and the description by Mrs. Napier, in which Lady Conolly’s name is not given yet it is given by Graves, contains sentences as: “her character was one of deep sensibility, and passions strong even to violence; but they were controlled and directed by such vivid faith as has never been surpassed”; an almost surreal perfection. Graves expresses himself in such highly praising terms about Mrs. Hemans, and about Lady Campbell.

<sup>23</sup> The “Irish Court” will have been the circles of the Lord Lieutenants, see also p. 141. Three of Sir and Lady Campbell’s daughters had married before 1854: Pamela Louisa (1821-1859) married Charles Stanford (1805-1873) in 1841, Georgina Geneviève Louisa (.. -1899) married Thomas Preston (1817-1906) in 1847, and Lucy Sophia Julia (.. -1898) married Edward Smyth (1819-1896) in 1848. See *The Peerage*, [www.thepeerage.com/p4730.htm#i47300](http://www.thepeerage.com/p4730.htm#i47300) [Accessed 15 Sep 2015]. It would be interesting to see portraits of them, to gain some idea of who would be called “quite “the rage”” in those days.

part of the last century – especially those connected with Scotland, and, still more precisely, with Edinburgh, where she at that time resided [...]. She has been well acquainted with Wordsworth during a long subsequent residence in this neighbourhood; and she, and her daughters (one of whom is lady [Mary] Richardson [(1802-1880)],<sup>24</sup> wife of the Arctic traveller [(1787-1865)]), have also deeply appreciated him. (I have visited alone, by moonlight, the graves in Grasmere churchyard, of Wordsworth and his daughter Dora, and others of his family whom I remember. I have also visited his widow [Mary Hutchinson (1770-1859)], who received me several times affectionately at Rydal Mount). And yet she (Mrs. Fletcher) is quite open to fresh impressions – for instance, to the merits of Matthew Arnold’s poetry. By-the-way, Mr. Arnold and his wife were members of our dinner-party.<sup>25</sup> To sum up all, she (Mrs. Fletcher) has *almost* the finest eyes in the world,<sup>26</sup> and when retiring in the evening, I asked leave to kiss her hand – an action which I found was considered to be quite *comme il faut*, and in which my son Archy followed me. I write in the bedroom which once was occupied by Mrs. Hemans, and the view from which is lovely. It is nearly time for me to go to bed, especially as I have walked several miles to-day. Good night, dear Lady Campbell, and believe me to remain your affectionate friend.”<sup>27</sup>

“Hamilton and his boy accompanied Mr. and Mrs. Richard Napier across Dunmail Raise to Keswick, and proceeded by Whitehaven to Belfast and Carlingford, where he was again the guest of Mr. [Thomas] and Mrs. [Dora] Disney.”

## 7.1 New friends and beloved children

Describing 1855, Graves starts with summarizing the “few events of importance” of that year. “The meeting of the British Association attracted Hamilton, in the September of this year, to Glasgow, and there, at the Observatory of the University, he became the guest of his friend Dr. John Pringle Nichol; and an intimacy thus arose between him and the family of the accomplished astronomer, which continued to be highly prized on both sides. Dr. Nichol’s son [John Nichol], now Professor of English Literature in his father’s University, was then a member of Balliol College, Oxford [...]. The confidence which his father had won from Hamilton was now, with full expansion of feeling, imparted to the son; and the daughter and sister of these men, Agnes [Jane] Nichol [(1839-1901)] [...], herself imbued in literature, and exercising in it her inventive faculty, was admitted a member of the band of friends.”

<sup>24</sup> Lady Richardson was a daughter of Mrs. Fletcher and had married Sir John Richardson in 1847.

<sup>25</sup> Matthew Arnold (1822-1888) was a son of Thomas Arnold (1795-1842) and Mary Penrose (1791-1873). According to the *Wikipedia* article ‘Matthew Arnold’, [https://en.wikipedia.org/wiki/Matthew\\_Arnold](https://en.wikipedia.org/wiki/Matthew_Arnold), his parents had been friends of Wordsworth.

<sup>26</sup> Since this letter was written to Lady Campbell, Hamilton most likely alluded to her eyes. And there probably was a good reason for that; especially when she was younger she had remarkably large eyes, which were friendly-looking throughout her years, see p. 266.

<sup>27</sup> [Graves, 1889, pp. 13-15]. Hamilton’s “old-fashioned gallantry” is recognizable in the remark that he would never call Lady Campbell by her first name, and his having asked leave to kiss Mrs. Fletcher’s hand. As regards to the former remark, it can easily be imagined that even if Lady Campbell would have asked Hamilton to leave out the “Lady”, as Adare did for his title, he would never have been able to comply with that request, something which would have caused him much anxiety. But knowing him well, she would not have asked him to do that. His comment that asking “leave to kiss her hand” was “*comme il faut*” seems to indicate indeed that that was not common usage anymore.

“On the day he left the Observatory of Glasgow Hamilton composed a sonnet prompted by a photograph of his daughter, which he had received as a gift from her on the eve of his departure from home. This sweet and interesting child had wound all her tendrils round her father’s heart. [...] It may be added, that even at this time – she was now only fifteen – she had evinced much love for poetry, with which she had largely stored her memory, and that having been brought through more than one serious illness, she had been very recently a sufferer from an accidental burn of considerable severity.”<sup>28</sup>

SONNET TO MY DAUGHTER.

Dear patient child! upon a bed of pain  
 So lately lying, watched by tender eyes,  
 Thy sun-limned face and form I dearly prize,  
 Thy gift at parting; and can see again  
 Thy head bowed meekly o’er some poet-strain,  
 In book out-spread, or some diviner page,  
 Such as would oft thy maiden thoughts engage  
 Ere yet I left thee for the ocean-plain.<sup>29</sup>  
 Not all the wealth of mind, not social joy,  
 When Scottish Science met in converse free  
 With men of other lauds, and welcomed me,  
 Away from thee could all my heart employ.  
 In starry tower, or on the sunny water,  
 I blessed my loving and beloved daughter.

Hamilton was openly proud of his daughter, and in October 1855 he wrote in a letter to Nichol Sr.: “I really must write again to Agnes to tell her a little more about the budding “authorship” of my Helen. It takes me quite by surprise, though it may never ripen to anything important for the world. She poured upon me, a few days ago, quite a stream of questions about your daughter: what sort of authorship she was engaged upon, and so forth; but all that may better be told to your Agnes herself. I assure you that a thought of my daughter’s about the Sea and its “Despair”, which (with glowing cheek pressed to my own) she confessed to me last night, appeared to me to be perfectly original! It was at least entirely new to me; and yet it seemed so deep, but true, that if I had ever met with it in reading, I could not have forgotten it.” Nichol Sr. wholeheartedly agreed: “I never heard of your daughter’s rare idea, the “Despair of the Sea”, but how many images it brings up. Tell her from me that she has added a new note to that grand music – a music which generally gives me a deeper sense of infinitude than even the midnight deeps. Depend on it that the mind which could suggest or find that conception will find many more rare ones.”

In Graves’ biography much more is said about William Edwin and Helen Eliza than about Archibald; yet he also had his own special place in the family. Already his

<sup>28</sup> [Graves, 1889, p. 21-23]

<sup>29</sup> Apparently, Hamilton called the Irish Sea “ocean”; either usually, or in poetic freedom. It does elucidate his use of the word ‘ocean’ in the poem for De Vere, see p. 186; the Dargle river, of which the water falls at Powerscourt Waterfall which itself is between the Wicklow mountains and the Irish Sea, flows into the Irish Sea at Bray, some 20 km south of Dublin.

birth had a practical influence on his father's life; on the 4<sup>th</sup> of August 1852 Hamilton wrote to De Morgan: "This is my 47th birthday, and my younger son Archibald's 17th. Without any deliberate pre-arrangement, we were brought into the world by the same accoucheur, old Dr. [Samuel Bell] Labatt [(1770-1849)] (who was not the person engaged to attend my wife, but was sent out by him), within an hour or two of being exactly thirty years asunder! There was some talk of calling him "Halley", as the comet was just about to appear: at least his second name is Henry, of which you know the Falstaffian abridgment is Hal. He is a tremendous book-worm; I consult his memory on all sorts of things. He is also a good boy."<sup>30</sup>

Hamilton had also written to De Morgan about Archibald in January 1852, clearly being proud of him: "I copied out, last night, [a] little Greek anecdote, or myth, for your reading. It would be absurd to boast of scholarship on the score of understanding that story. Easier Greek was perhaps never written. I hoped that my two boys were gone to bed, at the time of my copying it, but found afterwards that my younger son, Archibald, who is a tremendous bookworm, was down stairs. So I showed him my copy of the Greek, and he translated it off-hand. I begged of him to search in Homer whether there was any case of [a certain] spelling. He brought me first (this evening) [a wrong] line; but afterwards hit off what I wanted [...].

"P.S. – The said Archibald and myself read the first six books of Euclid through together, a few years ago, in the Greek, not skipping the Fifth Book, although I left it to him to decide whether we should do so. We agreed in voting that the last proposition of the Fourth Book, about the Quindecagon, was Analytical."

As he did to William Edwin and Helen Eliza, also to Archibald Hamilton expressed his affection openly; in 1864, when Archibald was a reverend already, Hamilton wrote a letter to him about his calculations concerning the start of the first century in "Mahomedan" years in relation to "our" years, and he ended this letter by writing "I am, dear Arch, your affectionate Father." He wrote his very last letter, about how he discovered the quaternions, to Archibald, and on his deathbed, only a month later, wanting to "testify his faith and thankfulness as a Christian by partaking of the Lord's Supper," Hamilton said to Graves that if the rules of the Church would have allowed it "he would rather receive it at [Graves'] hands, or those of his son [Archibald], than from anyone else in the world."<sup>31</sup>

### Seeing friends and neighbours, and gossip

From 1843 on Hamilton worked mostly on the quaternions and, as always, he worked very hard. Yet the Hamiltons did go to church together, and every now and then visits are mentioned. Although the biography almost entirely consists of letters written by Hamilton, quite a few letters are only hinted at and many letters are not given at all; the choices being made by Graves they hardly favour family and nearby friends. Yet family members seem to have been visiting frequently; in 1842 Hamilton remarked in a letter to De Vere: "My copy of *Edwin* has been carried off by one of my nieces at Dunsinea."<sup>32</sup>

<sup>30</sup> [Graves, 1889, pp. 46-48], [Graves, 1889, pp. 398-399]. For more about William Edwin see for instance p. 360, ff..

<sup>31</sup> [Graves, 1889, pp. 328-329], [Graves, 1889, pp. 170-171], p. 261

<sup>32</sup> [Graves, 1889, p. 228]. For *Edwin the Fair* see p. 101.

In May 1855 he wrote to De Morgan: “You may judge that my spirits have not suffered very much from my hard study. I began my last long letter to [Mrs. Wilde], by saying that Lady H. had pronounced me to be grown quite a *good boy* of late – so sociable and neighbourly – only she feared it was too good a thing to last! And in fact I have been paying more visits and attentions lately than usual to my neighbours hereabouts. I wonder how they tolerate me at all as an acquaintance, I take such and so long fits of locking myself up at times; but I believe that I am on pleasant terms with them all.”

That was doubtlessly true for their direct neighbour-friends, but amongst people who did not know him well there was gossip about his solitary way of working on his mathematics during all those periods he did not show himself. Graves writes: “Few were the persons who could attach due value to monuments of scientific work, which still fewer could comprehend.” In July 1857, when Hamilton was considering to write on the quaternions again, De Morgan even suggested that Hamilton was trying to avoid visitors: “I see now what use you, philomath, make of your position as astronomer. In a book printed by some lieutenant, showing that the earth moves trochoidally if the sun has a motion, the author says that he submitted his diagram to you, and that you told him that you could only give him ten minutes, for that you had an observation coming on in a quarter of an hour. I see now how you get rid of visitors whom you do not want. This is clever.”<sup>33</sup>

As regards the gossip, it may also be remarked that when Hamilton did socialize he did not always make things easy, even for people who might have been trying not to gossip, as can be seen in a letter he wrote to De Morgan in July 1852: “About a year ago I happened to meet, in Mrs. Charles Graves’s drawingroom,<sup>34</sup> a Dublin lady of some talent and a blueish tinge, who set herself to draw out my opinions on various points. Among other questions, or half questions, she said, “You are a Liberal in politics, I believe.” “Really,” said I in return, “I do not know exactly what the word means; but as it sounds intended for a compliment, I suppose that I had better accept it.”” Wayman also gives an example, according to him told by Hamilton himself but there is no reference: “After contemplation of mathematical relationships for an hour or two in the shade of a haycock, he was asked what he had been thinking about and he must have perplexed the enquirer by saying that he was trying to multiply the North-East by the South-West!”<sup>35</sup>

From Lady Hamilton’s remark that he had been “such a good boy lately, so sociable and neighbourly” but that she feared “that it was too good a thing to last” it can again be seen, as was discussed after the compliments Lady Hamilton received from uncle James, that the earlier mentioned seclusion did not mean that she did not socialize with people; this sounds as if she even enjoyed it. And reading this remark, it can be inferred that in their daily life not she was often a recluse; he was. While he was working she had her own life, and that included seeing neighbours, family and friends, apparently often without him.

<sup>33</sup> [Graves, 1889, p. 497], p. 421, [Graves, 1885, p. 632], [Graves, 1885, p. 526], [Graves, 1889, pp. 517-519]. This letter was a reaction to a letter from Hamilton containing “some nonsense” which had “done” him “good to write,” and De Morgan had started this letter writing: “I suspect you write letters as hens lay eggs, and that Lady Hamilton finds them, envelopes them, puts them before you as official letters, and you direct them as per memorandum affixed.”

<sup>34</sup> Charles Graves was married to Selina Cheyne (1817-1873).

<sup>35</sup> [Graves, 1889, p. 388], [Wayman, 1987, p. 64]

## Truthfulness

Hamilton was regarded as being extremely truthful, yet, as mentioned earlier, it can be pondered on how, in Graves' biography, the word 'truthful' is used; in a moral sense as never hiding anything and regarding being thoroughly honest as a spiritual obligation; or as a social definition, as never really telling a lie, and perhaps only if absolutely unavoidable, a white or polite lie, thereby being more honest than expected within the social rules and regulations of his social circles. Various remarks seem to indicate that the second meaning of the word 'truthful' is used, where honesty is closely linked to being "direct", as Mr. Ticknor called him at the time of the knighting, and as Helen Bayly was in 1831 when she told Hamilton that she preferred Eliza's poems over his; he had been very happy with her saying that so openly.

Hamilton valued truthfulness so much that that once, a year is not given, almost led to a duel; one of the anecdotes in the chapter 'A Gathering of Fragments' in the third volume of Graves' biography, apparently coming from Graves himself, reads: "That he possessed abundant physical courage, and a strong sense of personal dignity, was habitually manifested by him: one illustration is the fact, that in his earlier days he challenged to a duel a member of the Royal Irish Academy, who, as he conceived, had impugned his honour or truth. His friend, Colonel Larcom, whom he engaged as his second, succeeded in obtaining for him adequate verbal satisfaction."

After Hamilton's death also Sydney gave an anecdote, according to Graves "illustrative of his truthfulness:" "He gave a question to the boys of Lovell Edgeworth's school which they could not answer. Presently he found that the solution was impossible, and he at once avowed his mistake, for which prompt confession the boys gave him a tremendous cheer." To which Graves comments: "There must have been something frank and engaging in his way of doing what most examiners in a similar case would have done; for I find the incident (which occurred in 1828) referred to in a letter of Maria Edgeworth."<sup>36</sup>

Still, at the same time Hamilton did not tell his wife everything, thereby again indicating the second meaning of truthfulness; depending on the motive not mentioning something does not have to be the same as lying. When talking with her Hamilton certainly did take her feelings and strict religious opinions into account, after all, he had chosen a very pious wife. He hid letters from and to De Morgan if he thought she would find them "profane", he did not show her his correspondence with De Vere after De Vere converted to the Roman Catholic Church in 1851 and she worried that Hamilton would be influenced by him, and he will, most likely, not have shown her his correspondences with and about Catherine.<sup>37</sup> But it can be argued that this is, actually, quite understandable considering these times with their extremely strict social rules: divorcing him would be practically impossible for her, there was no psychology or relationship therapy, and women were rather easily diagnosed with "female

<sup>36</sup> [Graves, 1889, pp. 235-236]. This letter has not been given by Graves. Lovell Edgeworth (1775-1842) was one of Maria Edgeworth's half-brothers. Their father Richard Lovell Edgeworth (1744-1817) "believed that education alone provided the vehicle by which the Irish people could control their own destiny and avoid cultural annihilation. He [...] established a school in Edgeworthstown to educate children of all social classes and religions. The school was highly successful under the direction of his son Lovell Edgeworth, became a minor show-piece, and was visited by Wordsworth and [Walter] Scott [(1771-1832)]." Taylor B.W. (1986), Richard Lovell Edgeworth. *The Irish Journal of Education* 20 (1): 27-50. [www.erc.ie/documents/vol20chp2.pdf](http://www.erc.ie/documents/vol20chp2.pdf) [Accessed 05 Dec 2015].

<sup>37</sup> See p. 293, p. 292, p. 270, p. 304, p. 291.



hysteria”, a “disease” with enormous lists of possible symptoms, but without cures. The belief that any woman could suffer from hysteria was widespread: “During the Victorian Age (1837-1901) most women carried a bottle of smelling salts in their handbag: they were inclined to swoon when their emotions were aroused, and it was believed, that, as postulated by Hipocrates, the wandering womb disliked the pungent odor and would return to its place, allowing the woman to recover her consciousness.”<sup>38</sup> As a Victorian husband, Hamilton may have been afraid to really upset her.

And of course, this not telling everything will also have been true for Lady Hamilton; it is very likely that she also did not always say everything that was on her mind. The three-week visit to Lord Northampton was never repeated, and there were no other similar visits; it is therefore easy to imagine that Hamilton had been so happy when he told her about the invitation that she had been willing to do that for him. It will not have been so joyful for her as it was for him though; if it had been, she would have accompanied him more often.

But between them, in their own home, they will have trusted each other, knowing they would speak up when something was wrong and indeed, it is known that she once quarreled with him. Such truthfulness must have been very important to Hamilton, not only because he was very truthful himself, but also because, if she would not have been so truthful, thus in the sense of being very direct, he would have been forced to be conscious of her feelings, even when she would not express them. That would certainly have hindered him in the way he worked; his extremely solitary and deeply concentrated way of doing his mathematics asked for a profound trust in his wife.<sup>39</sup>

### 7.1.1 A second “illness of a nervous character”

During the first half of 1856 Lady Hamilton was again very ill, and her illness was reminiscent to the illness of 1840-1841. Hamilton was very worried about her; Graves remarks that his letters “prove not only his natural anxiety on the subject, but his affectionate devotion to her of personal care and detailed consideration.” At the beginning of August Hamilton wrote to John Graves, with whom he had planned to stay during the annual meeting of the British Association, that he had been taking care of her and that he was in doubt whether he should attend the meeting; “Lady Hamilton has been really very ill for a good while past. She has often parted with me before, but for the last six months or nearly so, I have been a sort of nurse to her, and it is a great effort to her to part with me, at present, even for a few days.”

This remark is again surprising. If Lady Hamilton would only have been away from home during the three long periods Hamilton would probably not have expressed himself like this; this seems to indicate that she was away more often. That would make sense: in those times travelling costed much energy and visits to family in other cities may easily have taken longer periods of time, as in the case of the “Trim friends” who had stayed at the Observatory in 1833. Although it is never mentioned in the biography, it is therefore very likely that, just like Hamilton, also Lady Hamilton stayed with family or friends every now and then, or even regularly.

<sup>38</sup> Tasca, C., Rapetti, M., Carta, M.G., Fadda, B. (2012), Women And Hysteria In The History Of Mental Health. *Clinical Practice & Epidemiology in Mental Health*, 8: 110-119. [www.ncbi.nlm.nih.gov/pmc/articles/PMC3480686](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480686) [Accessed 10 Sep 2015].

<sup>39</sup> See p. 198, p. 318. It is not known whether the Hamiltons quarreled more often.



Graves continues: “This illness of Lady Hamilton, and the confinement to which it doomed himself, had undoubtedly an injurious effect upon Hamilton’s own health and spirits. There are indications of this in his journals and letters, prompting in the mind of the reader uneasiness and expectation of some break-down.” But on the 10<sup>th</sup> of August Hamilton could, according to Graves, “obtain a release from home duties,” and arrive at Cheltenham before the close of the meeting of the British Association. “He was thus enabled to gratify his desire publicly to manifest his feeling towards Dr. Lloyd by seconding Whewell’s proposal that at the succeeding Meeting of the Association in Dublin his old friend should have the honour of being its President.” While staying at John Graves’ house, meeting “brothers in science” which had the “happiest effect upon his spirits,” “the physical effects of the disadvantageous circumstances I have referred to were not to be escaped from, and showed themselves in a severe fit of gout, by which he was rendered unable to walk, and obliged to remain for a fortnight longer than he had intended a recipient of his friend’s hospitality. By both host and guest this was considered to be the reverse of a penalty” and he “feasted upon the contents of the rich scientific library of Mr. Graves.”<sup>40</sup> Yet, by attributing Hamilton’s attack of gout so directly to Lady Hamilton’s situation, Graves again lashes out to her, once more leaving the notion that it was all her fault.

## 7.2 Praise for the *Lectures*

During the skipped years, Hamilton had discovered the quaternions and written the *Lectures on Quaternions*, and although it was very difficult and not selling well, he had received much praise. In 1853 Herschel had beautifully illustrated its impressiveness, combining praise with the effort needed to read it: “Now most heartily let me congratulate you on getting out your book – on having found utterance ore rotundo [with a full, round voice] for all that labouring and seething mass of thought which has been from time to time sending out sparkles, and gleams, and smokes, and shaking the soil about you – but now breaks into a good honest eruption, with a lava stream and a shower of fertilizing ashes. I don’t mean to say that there is not a good deal of cloud (albeit full of electric fire) – the good old “stupendo e orgoglioso pino [dazzling and lofty volcanic mushroom cloud]” of the fiery outbreak surrounding the bright jet, the true product – but the cloud clears, as the wind drifts and leaves the hill conspicuous. Metaphor and simile apart, there is work for a twelvemonth to any man to read such a book, and for half a lifetime to digest it, and I am quite glad to see it brought to a conclusion, which I began to fear [...] might be indefinitely delayed.”

In 1855 Hamilton wrote to De Morgan: “I enjoyed very much the frequency and fulness of our correspondence while my volume on quaternions was in progress, and have noticed that one or two of my Dublin University acquaintances,\* to whom I mentioned the circumstance of our often exchanging letters, could not restrain themselves from shaking their wise heads, and saying (at least within their hearts): – “We understand it now; you owe it all to De Morgan”! \*Please not to take me as sneering at my own Alma Mater, even as regards Quaternions. The Board of T.C.D. at last took courage to discharge the whole of my bill with their printer; and really, though

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<sup>40</sup> [Graves, 1889, pp. 51-53]

they may be rich, they have a great variety of claims upon them. And as to the young men, who are just coming into notice, they have here a great degree of acquaintance with my Calculus, as I have tested by examining many of them myself, and hearing others examined publicly by C[harles] Graves.”<sup>41</sup>

In the end it was Tait who would gain, still during Hamilton’s lifetime, the best understanding of the quaternions, but that also was a difficult process. Tait’s biographer C.G. Knott (1856-1922) writes: “Hamilton’s first book, *Lectures on Quaternions*, was published in 1853. We learn from the inscription on the title page of Tait’s copy that he bought it the same year [...]. As he explained in the preface to his own Treatise (1st edition, 1867) Tait was attracted to the study of quaternions by the promise of usefulness in physical applications. Yet in Hamilton’s Lectures very few pages indeed touch upon dynamical problems. Tait used to tell how his faith in the new calculus was put to a severe test as he read through these remarkable so-called lectures of Hamilton. Lecture after Lecture he carefully perused, wearied though he was with Hamilton’s extraordinary prolixity in laying strong and deep the foundations of his calculus. He seemed to be making no progress. Did the fault lie with the author, or with Tait’s own inability to understand the system? Such were his feelings through the first six “Lectures”. But perseverance had its reward when he came to Lecture VII. Here, after a few sections of recapitulation, Hamilton revels in the wealth of geometrical applications fitted to display the power of the calculus. This so-called Seventh Lecture occupies 356 pages in a book of which the other six Lectures occupy 380! Tait was one of very few who really appreciated the immense value of Hamilton’s work. Many who with gay confidence began to read the Lectures lost heart and fell back from Quaternion heights into Cartesian valleys, where the paths seemed easier in their artificial symmetry.”<sup>42</sup>

These praises are concluded here with a note Hamilton wrote to John Graves in July 1857, introduced by Graves with the comment: “The foible of vanity was one from which [Hamilton] felt that he was not exempt. In this note he ingenuously betrays his consciousness of the infirmity, the evil of which he seeks not to palliate; and he takes a legitimate pleasure in what he rightly judged to be a proof that it did not deeply penetrate his nature. The letter from Mr. J. T. Graves, to which this was a reply, had brought to his knowledge the glowing recognition of the discovery of Quaternions, recently published in the *North American Review*, and at the same time had made mention of the illness of the writer’s sister, Madame [Clarissa von] Ranke.”

In the note Hamilton had written: “I remember reading, long ago, in Coleridge’s *Biographia Literaria*, or in some other work of his, a passage which ran somewhat thus: – “For the passion of Vanity is a loveless passion – loud on the hustings, gay in the ball-room, mute and sullen by the family fireside.” I hope that it may be accepted as some indication of what, I trust, is the fact, that my moral nature has not been hopelessly corroded by vanity, when I tell you that your slight mention (though made with all due fraternal affection, and, therefore, not deliberately to be called slight) of your sister so entirely obliterated all recollection of the compliment which you say that I have been lately paid in America about the Quaternions, that I had absolutely

<sup>41</sup> [Graves, 1885, pp. 681-682], [Graves, 1889, p. 491]

<sup>42</sup> See pp. 13-14 of Knott, C.G. (1911), *Life and Scientific Work of Peter Guthrie Tait : Supplementing the Two Volumes of Scientific Papers Published in 1898 and 1900*. Cambridge: at the University Press. <https://archive.org/details/lifescientificwo00knotrich>.

forgotten all that part of your recent letter when I was lately writing to you. Yet I remember, with great interest, that my scientific labours were very early noticed in America. But, somehow, I look quite coldly now on compliments of all sorts, though certainly not less genial in temperament, nor more indolent in spirit and exertion, than I was long ago. Here is a whole basket of egotism to prove that I am not egotistic! which, after all, I am, but still not so much as to obscure some common sense, nor to deaden any affection.”<sup>43</sup>

### Ideas about a “tract”

Shortly thereafter Hamilton started to think about writing some treatise on quaternions again, a thought which would culminate in his second book, the *Elements of Quaternions*. But it did not start out as a plan to write such a book; on the 20<sup>th</sup> of May 1857 he wrote to De Morgan: “It is clear that Mr. [George] Salmon [(1819-1904)] thinks the success (such as it is) of the quaternions to be a [...] piece of good luck – or at least that they form an intransferable sort of Bank Post Bill, useful only to the proper possessor of it. I have recently made out an interesting property of the envelope of the plane connecting two corresponding sides of a Hessian or other Cubic Cone – by quaternions; but Salmon would call my method a purely *spontaneous* one! Return to me his note, and believe me,” &c.

De Morgan replied in June: “I return Mr. Salmon’s letter. His very name is redolent of recondite curve properties. What’s in a name? If Lobster should ever write on the higher curves, or, better still, if Salad should, and Lobster should publish an enlarged edition, then Lobster’s Salad will suggest we don’t know what ideas of symbolised space. On with you. You have the whip hand of the quaternions, which hardly anybody else will get in your time.”

But early in May 1857 Hamilton had entered upon a correspondence with Salmon. “In this correspondence, which was carried on to the end of September, Dr. Salmon places himself as a learner at the feet of Hamilton, states frankly his difficulties and objections, gradually overcomes his original repugnance to the revolutionary character of some of the processes, and while retaining a doubt whether a large part of the working equations in Quaternions might not admit of being conveniently translated out of the quaternion notation, concludes by saying (August 26th, 1857) that, even if this were so, the admirable consistency and harmony of the whole scheme is deserving of all praise.”

On the 14<sup>th</sup> of August Hamilton wrote to John Kells Ingram (1823-1907): “Salmon is getting on so awfully fast in the Quaternions, that if I don’t take care we shall get into some contest of priority! In a note received from him this morning he says – at the end of some railway pencilling – “I have not got your Paper to see whether this agrees with your result, but if it does not, so much the worse for you!” You conceive, of course, that this is just the thing I like. I am quite tired of being a Fee-faw-fum, in Quaternions, or in anything else. The highest reward that can be given me for my labours in that, or in any other department of science, is to take it out of my own hands. [...]

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<sup>43</sup> [Graves, 1889, pp. 77-78]. What Coleridge did write, on p. 194 of his *Aids to Reflection*, see footnote 56 on p. 45, was: “for the anxiety to be admired is a loveless passion...”. From which it may perhaps be derived again that for Hamilton vanity was closely linked to the praise he had been used to since childhood.

“It is a genuine pleasure to me to believe that in Salmon I shall have a worthy successor, as regards my more purely mathematical researches, and may he much excel, even in quaternions, myself! Meanwhile I am, &c.

“P.S. – MacCullagh once said to me, in allusion to you, that it was no wonder that J.K.I. should have a friendly feeling towards *ijk*.”<sup>44</sup>

On the 7<sup>th</sup> of August Hamilton wrote to De Morgan: “It may amuse you – and certainly I do not aspire to instruct you – if I mention that I have this day dashed off a note [...] which [...] began nearly as follows: – “My dear Salmon, a brilliant thought has occurred to me on which I should like to have your opinion.” It was a project of a mathematical “Tract”, on which I consulted, or non-consulted him; for I told him plainly, that whether he said Yes or No, I would, if in the vein, go on. But I said, with equal honesty, that his opinion on the point would interest me very much. In the same spirit I write to you, De Morgan, to mention that it has just occurred to me that a “Tract”, of perhaps fifty pages, or suppose that it stretched to one hundred, might be drawn up by me, and be entitled, “On the treatment, by Quaternions, of Cones of the Second Order” [...]: and that such a Tract, if not allowed to become too long, might fairly be made a part of undergraduate study among young men seeking for honours in Science. In Dublin it would have a peculiar appropriateness, because Cones and Conics have been very generally studied by clever young men here [...].

“Now, dear De Morgan, I am not asking you to advise me as a friend, but merely to tell me how you relish (or dis-relish) the project, as a scientific man; and as one well acquainted with University life and studies in England. It is mere matter of fact that I possess a large amount of materials; and I should hope that, in point of authorship, a second book of mine might have a chance of being better than the first; which is not asserting a great deal.”

De Morgan answered: “A tract on quaternions, brief, of syllabus character, and not lengthy in the elementary parts, would be a very desirable thing. It must not be on cones alone, but may take that or any other application to fill out upon.” But he added that “for the Cambridge undergraduate such a thing is nugatory,” partly because of the already “loaded courses,” partly because “the Cambridge tendency is towards physical application. A great part of what so many of you have made elementary to the higher Dublin men is Sanscrit to the high Wrangler as yet. If a man were determined to publish, and could be restrained from making too large a tract, keeping only the very fundamental in view, he would put a temptation in the way of a few of the highest men, which would in time produce a determination on the part of some one of these men – when in office – to examine in quaternions. The thing would then be done. As to any sale at Cambridge, now, doing anything perceptible towards paying the expenses, it is beyond all reasonable probability. The greater part of the independent readers would, I verily believe, be found in Oxford. What number that would amount to I have not the least idea. But Dublin would furnish the largest contingent. And now you have all I can say. I am afraid the book would be a loss of £ s. d.; in every other point of view it is an excellent idea.”

On the 14<sup>th</sup> of August Hamilton wrote: “You know me too long to be surprised by any oddity of manner of mine; yet I think that I shall surprise you by an oddity of conduct; I have actually taken, and acted on, *advice*! At least, I have abandoned a project, which for a day or two had been a pet one, of writing something about

<sup>44</sup> [Graves, 1889, p. 523], [Graves, 1889, p. 86], [Graves, 1889, p. 88]

quaternions, for our “Moderatorship” men in T.C.D. Salmon tells me that they have too much to do as it is, and I believe him. But Salmon thinks that the interval between the “Moderatorship”, or the “Degree” Examination here, and the Examination for Bishop Law’s “Mathematical Prize”, might very properly be devoted, in part, to a study of the quaternions.<sup>45</sup>

“Consequently, I do not abandon the hope of writing something elementary, by which I mean something about Sphero-Conics, and Surfaces of the second order, with a little touch at Cubo-Conics, or the intersection of a sphere with cones of the third order. A short pamphlet, or tract, upon such subjects, might not perhaps cost much in money; but really my Alma Mater has behaved so handsomely to me about my Book, that I am not inclined to ask for any new book-grant. For the immediate object of preparing Bishop Law’s prize-men in Dublin, my own lectures and luncheons do almost enough (I lately gave a course of oral lectures); but as regards the training up of a new race of “quaternionists”, I think that some short “tract”, or pamphlet of my own might be important.

“August 17. – This note has been lying by me for some days, and yours has reached me in the interval. Your remarks appear to be very just, and at all events that whim of mine has passed away for the present. I am not at all impatient for early attention to the quaternions; but shall perhaps go on to collect examples of work in that calculus, so as to have them ready for the time, which (according to my expectations or hopes) is sure to come, when a certain class of students will desire to possess them. Meanwhile I have written a whole lot of letters to Salmon on the subject, and the enclosed note (which I wish you to return) will show that he has already so far learned the principles of the quaternion calculus as to be able to work for himself.”

In the last week of August 1857 the annual meeting of the British Association was held in Dublin, while Lloyd was president for the year and Hamilton was vice-president. “Hamilton was a regular attendant at the meetings, and he made a communication to the Mathematical Section, *On some Application of Quaternions to Cones of the Third Degree*.” Before finding how to do it, while “walking up through the fields last night, after attending a meeting of the Royal Irish Academy” as he wrote to Lloyd on the 14<sup>th</sup> of April, he still had “had a misgiving, lest [the quaternions] practical usefulness might be bounded within the limits of the theory of Surfaces of the Second Order.” According to Graves, it was “considered by Hamilton to be in the working of Quaternions a step forward of very considerable importance,” but “the *Athenæum*, (September 12, 1857, p. 1148),<sup>46</sup> recording the above communication to the Association, adds: – “It would be impossible to give the general reader any clear

<sup>45</sup> According to the website of Trinity College this prize still exists and is “awarded to the first moderator in mathematics, provided that a first class moderatorship is obtained.” [www.maths.tcd.ie/prospective/prizesetc.php](http://www.maths.tcd.ie/prospective/prizesetc.php). A short article on this website describes the establishment of the moderatorships, stating that Bartholomew Lloyd [(1772-1837)], Humphrey Lloyd’s father, who became Provost in 1831 and was a “determined if conciliatory reformer,” made “a number of important changes, of which the most significant was the introduction of the modern system of honor studies in 1833. Until then there had been only one course for the degree of B.A., the ordinary or general course in arts embracing classics, mathematics, a little science and some philosophy. It became possible for an undergraduate to specialise when in 1834 examinations for degrees with honors, or moderatorships, were established in mathematics, in ethics and logics, and in classics. In 1851 a moderatorship in experimental science was added; this at first included physics, chemistry and mineralogy, and was later expanded to comprise geology, zoology and botany.” [www.tcd.ie/about/content/pdf/history\\_college.pdf](http://www.tcd.ie/about/content/pdf/history_college.pdf).

<sup>46</sup> ‘On some Application of Quaternions to Cones of the Third Degree’ by Sir W. R. Hamilton. *The*

idea of this abstruse paper; but at its conclusion the soundness of the principles on which the author proceeded was made strikingly manifest to the Section by Mr. Henry J. Smith [(1826-1883)] of Oxford, explaining in fully as lucid a manner as that of Sir W. Hamilton (who makes everyone that hears him for the moment think that he clearly comprehends the whole subject), how by the method of Quaternions, but by a different process from that of Sir W. Hamilton, he had in some of the examples selected by Sir W. Hamilton, arrived at precisely the same numerical results.” [...]

“Hamilton also expounded to the Mathematical Section his Icosian Calculus, and distributed a lithographed illustration of the Icosian Game. [...] On the last day of the Association week, although [Hamilton] had to attend in the morning the funeral of a relation, he made a special effort to be present at the final meeting, in order that he might manifest to the end his loyal homage to the Presidency of his friend.”<sup>47</sup>

### Working on integrals

Hamilton did not start writing his “tract” then; following a mathematical letter from De Morgan “on the 16th November Hamilton enters on a fyfte of this correspondence which passes far on into 1858. It was suggested by his communication to De Morgan of his Paper on Multiple and Definite Integrals, published in the November number of the Philosophical Magazine. The results of that Paper are in these letters largely extended.”<sup>48</sup>

On the 3<sup>rd</sup> of December 1857 Hamilton wrote to De Morgan: “It has been very pleasant and (I hope) useful to myself, to work a little at Definite Integrals lately; and even if the results to which I have arrived shall turn out to contain nothing new, although, I own, this seems to me unlikely, I am not going to sit down in a corner with my finger in my eye. ... My results seem to point out some new methods for transformation of series, from ascending to descending powers, or vice versa, in connexion with definite integrals.” But he did not stop there; in May 1858 he sent De Morgan the last sheet of an, according to Graves, “enormous” letter on definite integrals which he had started in February, “perhaps chiefly for the purpose of clearing my own thoughts, although partly for the pleasure of corresponding.”

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*Athenæum* : a journal of literature, science, the fine arts, music, and the drama, July-December 1857, pp. 1148-1149. <https://babel.hathitrust.org/cgi/pt?id=iau.31858029267329>. During this meeting of the British Association also Archibald made a communication; ‘On Electrical Currents in the Earth’s Surface’, describing measurements of “the earth as a conducting body,” made with “a small galvanometer” in the “Dunsink Garden”. *Report of the Twenty-Seventh Meeting of the British Association for the Advancement of Science; held at Dublin in August and September 1857*. 1858, London: John Murray. Part: Notices and abstracts of Miscellaneous Communications to the Sections. Mathematics and Physics, pp. 48-49. <https://archive.org/details/reportofbritisha57brit>.

<sup>47</sup> [Graves, 1889, pp. 521-524], [Graves, 1889, pp. 82-85]. The deceased relative will have been Elizabeth, the eldest daughter of uncle James, who lived from 1814/1815-1857, see footnote 16 on p. 218 and [Graves, 1882, p. xix]. Hamilton invented his Icosian Calculus and game in 1856, and Graves remarks that October was the “happy birth-month” of both Conical Refraction, the Quaternions, and the Icosian Calculus. [Graves, 1889, p. 52]. The Icosian Calculus is another non-commutative algebraic system, connected to the icosahedron. Hamilton, W.R. (1858), On a New System of Roots of Unity. *Proceedings of the Royal Irish Academy*, Vol. VI: 415-416. Read on the 10<sup>th</sup> of November 1856. <https://archive.org/details/proceedingsofroy06dubl>.

<sup>48</sup> [Graves, 1889, p. 526]. Hamilton, W.R. (1857), On the Calculation of the Numerical Values of a certain class of Multiple and Definite Integrals. *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, Vol XIV – Fourth Series, pp. 375-382. <https://archive.org/details/ils/s04philosophicalmag14londuoft>.



De Morgan reacted: “I have actually read through (not worked through) your letter of 72 folio pages, begun on a sheet which you said you did not expect to finish. Did ever mortal do such a thing in hot weather? Why, it is a collection of memoirs. Most truly did you begin by saying that an inventive mathematician need never fear being in want of a stock of difficulties. [...] Your numerical treatment is wonderfully successful, though mind, it is but a beginning. I should almost have grudged your taking the trouble for me, if I had not been satisfied that it was the best thing you could do. You will find that you pick up in all directions when you begin to write your memoir. But, Heaven and Earth! how is a man to carry it all in his head? Thank goodness that I have not to get it up for an examination. There is so much novelty about the forms that the old things do not help.” Again from the 15<sup>th</sup> of July until the 19<sup>th</sup> of August 1858 Hamilton wrote to De Morgan on this subject, this time on twenty-four folio pages. And according to Graves “the treatment of the subject contained in them is concluded in a letter of Hamilton’s, bearing the two dates of December 8, 1858, and January 3, 1859.”<sup>49</sup>

### Socializing, and Helen Eliza’s illness

Next to working hard Hamilton was also seeing friends; starting his description of 1857 Graves writes: “One of Hamilton’s neighbours living at Farmleigh, a country house adjacent to the Phoenix Park, was Mrs. Smythe, an English lady of much intelligence and culture. His visits to her house were often sought for, and to congenial guests there assembled he not unfrequently gave delight by reciting or reading to them poems, not confined to his own and his sister’s (though these were in request), and by imparting to them information on various sciences, and discussing with them questions on connected difficulties. Linnæus and Botany, the Bible and Geology, Burns and Tennyson, I find by his note-books were subjects so discussed.”

Graves then gives the reason to write about these visits, from which it can again be seen that he did not think that a biography such as this one should contain much of its subject’s daily life. “I here mention this lady because, by seeking from Hamilton on behalf of a sister (Mrs. Frederick White)<sup>50</sup> whose tastes were scientific, a general notion of Quaternions at the same time that Dr. Nichol [Sr.] of Glasgow was urging him to contribute an article on the subject to his *Cyclopædia of Science*, she was the cause of this article taking the form of three Letters on Quaternions, the first of which was addressed to “Mrs. S –.”<sup>51</sup> He felt, however, that what he had to

<sup>49</sup> [Graves, 1889, p. 531], [Graves, 1889, p. 551], [Graves, 1889, p. 529]

<sup>50</sup> From neither Mrs. Smythe nor Mrs. White the birth and death years seem to be known.

<sup>51</sup> Nichol, J. (1857), *A Cyclopædia of the Physical Sciences: Comprising Acoustics, Astronomy, Dynamics, Electricity, Heat, Hydrodynamics, Magnetism, Philosophy of Mathematics, Meteorology, Optics, Pneumatics, Statics, &c. &c.* London: Richard Griffin and Company. The second, 1860, edition can be read online: <https://archive.org/details/b21496079>. Hamilton’s letters can be found on pp. 706–726. They are introduced by the remark: “The Editor had the good fortune to expect an article on QUATERNIONS from Sir William Rowan Hamilton. He has obtained the three following most lucid and remarkable letters.” In the second edition, published after Nichol Sr.’s death in 1858, Hamilton’s “letters” are followed by a very complimentary editorial, in which some published praise for the quaternions is summed up, and a piece in which the quaternionic treatment of a subject within the wave theory of light, found by Augustin-Jean Fresnel (1788–1827), is mentioned: “In [1859], Professor P. A. Tait, of Queen’s College, Belfast, has published, in the May No. of the Quarterly Journal of Pure and Applied Mathematics, a paper on the application of quaternions to Fresnel’s Wave Surface; which paper, although based, of course, on the principles of the *Lectures*,



write in addition to the contents of that first letter could not with probability be supposed to be intelligible to a lady who was no more than a dilettante in science, and on this account the second and third letters were addressed to an imaginary gentleman [who, as Hamilton writes in the second letter, had said that he had read the letter to the lady]. They give a very full view of the nature and modes of application of the Quaternion Calculus, and of his own work upon it up to the time at which they were written: and in them, as in all his writings, he takes care to assign to other mathematicians engaged in the same field of research their due amount of credit."

In April 1858 Hamilton organized a 'Feast of the Poets' at the Observatory for which he invited De Vere, Mrs. Wilde, Anster and Denis MacCarthy (1817-1882). De Vere wrote about it: "I shall not soon forget the pleasant day we had with you: our merry dinner, rambles about the green fields, and poetical recitations." In early June Hamilton organized a "formal" dinner-party, attended by, amongst others, Waller and Anster, and later in June he had an early dinner at the Observatory with "a large party of students from the College" who came to see the instruments.

"By the invitation of Mrs. Edgeworth [Frances Ann Beaufort (1769-1865)] Sir William and his eldest son, William Edwin, joined [at the end of July] a large party at Edgeworthstown to celebrate a festival in honour of William Edgeworth, whose father, no longer among the living, had been Hamilton's old friend, Francis Beaufort Edgeworth, and who himself had been schoolfellow of the son who now was Hamilton's companion. On the return of Lieutenant [William] Edgeworth with his regiment from India, the tenants of Edgeworthstown combined to testify their joy by the presentation of a sword of honour, and were, in reciprocal kindness, invited to a banquet at which congratulatory speeches were made in good old Irish fashion. Hamilton enjoyed greatly this opportunity of meeting the members of a family with whom he had been long bound in friendship and intellectual sympathy. Besides the respected lady at the head of the family, who was his hostess, he met Dean and Mrs. Butler [Harriet Edgeworth (1801-1889)], Mrs. F.B. Edgeworth [Rosa Florentina Eroles (1822-1864)], the widow of his friend and mother of the hero of the day and of other children. To one of these, who now ranked as Miss Edgeworth, he addressed the sonnet which I here present to the reader as the latest extant of his verse compositions. A letter to his daughter, written a day or two after the festival, tells of his having visited the church. "On Friday I went with Richard to the church tower, and climbed (not without danger) to the top of the tower, whereon the spire rests, having been erected on a peculiar plan by the late Richard Lovell Edgeworth, father of Miss Edgeworth, the Authoress." <sup>52</sup>

"The interior of the church contained memorial tablets of the Edgeworth family, and among these one met his eyes recording in brief simplicity the birth and death of Maria Edgeworth. Under the impression of this sight, his thoughts toned down to a correspondingly stern simplicity, he wrote the following lines."

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exhibits considerable power and originality in the handling of the calculus. To that important surface, it appears that Sir W.R.H. had long since (as was natural) applied, to some extent, his own mathematical instrument; and recently, besides a paper read to the Royal Irish Academy, he circulated, in section A. of the British Association at Aberdeen [1859], a lithographed account of a singularly short process of analysis, whereby he arrived almost mentally at that celebrated construction for the wave which had been assigned by Fresnel as the result of extremely complex calculations."

<sup>52</sup> [Graves, 1889, pp. 75-76], p. 107, [Graves, 1889, pp. 101-103]. Mary Edgeworth (1839-1893) was the daughter of Francis and Rosa Edgeworth, Richard (1843-1869) was one of her brothers.

TO MARY EDGEWORTH.

Mary! your great MARIA ne'er from me  
 Took tribute of such song as I could give:  
 Though deep entreasured in my bosom live  
 Thoughts of her frank and loving courtesy,  
 Her wisdom, wit, and truth. 'Twas sweet to see,  
 Yet sad, to-day, memorial tablets brief,  
 Less speaking of the fond survivors' grief,  
 Than uttering, in that simplicity,  
 Which with her noble nature suited well,  
 Such record grave, and not of her alone,  
 As fitly might on monumental stone,  
 Within those holy walls to which the bell  
 From tower ancestral calls with solemn tone,  
 Her birth, her death, her name of EDGEWORTH tell.

Late in August 1858 Helen Eliza became so very ill that Hamilton did not attend the annual meeting of the British Association; in September he wrote to De Morgan: "I received your note of August 21, but started almost immediately afterwards for St. Mary's Abbey, Trim, where my dear daughter Helen was on a visit to some cousins of mine, and was then dangerously ill." Hankins writes that Hamilton "stayed for three weeks seeing her through her crisis. Finally, he reported to his sister Sydney that she was better, but added that the burden on him had been heavy, both financially and emotionally." And on the 14<sup>th</sup> of September Hamilton wrote to De Morgan: "I left her [...] after a visit of about three weeks to those scenes and friends of my boyhood; my surviving cousins indeed had not been born when I used to be most at Trim, [...] and when I came away, my daughter was much better, and all danger was considered to be over."<sup>53</sup>

Hamilton must have started the writing of his *Elements* in the latter half of 1858; Graves writes that his letters of early 1859 "are numerous, but being taken up with an application to De Morgan, as Secretary of the Royal Astronomical Society, for a grant from the Society of its Monthly Notices to the Hon. Mrs. [Mary] Ward [(1827-1869)], with the proposal of problems in his Icosian Game and Calculus, and with requests for criticisms on the early chapters of his *Elements* (then called by him *Manual*) of *Quaternions*, do not afford much matter for publication."<sup>54</sup>

<sup>53</sup> [Graves, 1889, p. 103], [Hankins, 1980, p. 368], [Graves, 1889, pp. 555-556]. Helen Eliza would need another year to completely regain her strength, see p. 19. Uncle James had died in 1847, aunt Elizabeth in 1848. Of their thirteen children four children had died young, and four had died in adulthood. Three of them were the daughters named in the census of 1821, see p. 218: Elizabeth died in 1857 while being forty-two, Grace had died with twenty-six, Mary had only become twenty-three. The fourth was a son, Francis, who was born after the census and had died in 1846; he cannot have been older than twenty-five. Although it may have seemed that uncle James' house had been Hamilton's 'real home' in his early youth, Hamilton clearly did not see it that way.

<sup>54</sup> [Graves, 1889, pp. 556-557]. "In September the great comet of Donati occupied Hamilton's attention as Astronomer, and he incidentally makes mention of his being engaged through two entire nights successively in observation of the splendid apparition. Much was he beset by inquiries on this subject from amateur astronomers, but one of these correspondents, the Hon. Mrs. Ward, [...] proved herself so well-informed, and so much in earnest as a student of the science, that he could not but cordially assist her design of adding to her record of recent comets some history of one which

### 7.3 Writing the *Elements*

Starting to describe 1858 Graves had written: “It is to be remembered that, whatever might be the scientific investigations to which Hamilton occasionally turned aside, his main occupation during the years now arrived at was the preparation of his Manual of Quaternions, to which he subsequently gave the name of *Elements of Quaternions*. Becoming aware of the imperfection of his *Lectures* as a treatise, he determined to make his second book complete and satisfactory, and to this end he very carefully laid down the lines upon which the structure was to be raised. He did not anticipate, however, the magnitude which that structure would assume, nor the time which its building up would occupy. He thought that a volume of 400 pages would suffice for a work which 700 did not bring to its completion, and he hoped to publish within two years what occupied him to the day of his death, more than seven years after the commencement of the undertaking.”<sup>55</sup>

In November 1859 Hamilton received Herschel’s aforementioned “cry of distress”. Having sent him a quaternionic treatment on Fresnel’s Wave<sup>56</sup> Herschel reacted: “Your deduction from Quaternions of Fresnel’s Wave is one of those things which I have just knowledge enough to admire without enough to understand. But it set me again on reading your *Lectures on Quaternions*, and I got through the three first chapters of it with a much clearer perception of meaning than when I attacked it some three or four years back, but I was again obliged to give it up in despair. Now I pray you to listen to this cry of distress. I feel certain that if you pleased you could put the whole matter in as clear a light as would make the Calculus itself accessible as an instrument to readers even of less “penetrating power” than myself, who, having once mastered the algorithm and the conventions so as to work with it, would then be better prepared to go along with you in your metaphysical explanations.

“Do pray think of this. At the risk of offending, I will venture to say you will not have done yourself justice if you do not give the world some clue that a lower class of thinkers can unravel than those who alone can hope to master that book. The simplest way would be to give forth a number of examples of the treatment of problems and theorems by it. I mean not examples which shall be of themselves general theorems or important discoveries, but good honest ordinary problems or theorems, such as can be readily worked by common Algebra and Trigonometry, but gradually increasing in difficulty; and these might be prefaced by a clear statement of the Rules of the Calculus *as Rules*. Such a book would have an immense influence. Hundreds would learn to use the Calculus as a means of investigation and its theory would by degrees [be] popularised. Pray excuse this from yours very sincerely.”

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surpassed them all in lustre and magnificence [the Great Comet of 1843], and he obtained for her the grant from the Royal Astronomical Society of its Monthly Notices. This accomplished lady, who was a cousin of Lord Rosse [...], published, in 1859, a book entitled, *Telescope Teachings*, illustrated by her own drawings, and giving much information respecting Donati’s Comet.” [Graves, 1889, p. 104]. The Hon. Mrs. Ward, (1859), *Telescope Teachings*. London: Groombridge and Sons. [https://archive.org/details/telescope\\_teachings\\_100hongoog](https://archive.org/details/telescope_teachings_100hongoog). The book indeed contains many beautiful coloured drawings.

<sup>55</sup> [Graves, 1889, p. 97]

<sup>56</sup> Having become convinced by experiments that Newton’s particle theory of light should be replaced by a wave theory, in 1819 Augustin-Jean Fresnel (1788-1827) gave a mathematical description of diffraction. In 1821 he gave a description for the propagation of light in a homogeneous medium; that is called Fresnel’s wave surface. [www.britannica.com/biography/Augustin-Jean-Fresnel](http://www.britannica.com/biography/Augustin-Jean-Fresnel) [Accessed 11 Feb 2015].

“Hamilton replied in grateful terms, and enclosed for Herschel’s satisfaction the initial sheet of his proposed new work, written, as he trusted, “in a style like that which you desire for me; or at least more like it than the *Lectures*.” He had the gratification of receiving from Herschel the following acknowledgment of his specimen: – “Nothing can possibly be clearer or more to the purpose, and if the rest of your book be as much so, and go on the same principle, it will be one of the most important, and I will venture to say, the most widely circulated elementary work ever published.”

“A second sheet was sent by Hamilton to Herschel, and drew from him the criticism that by the introduction of some difficult applications of the Calculus the attention of the commencing student was too soon diverted from its principles. Hamilton submitted to the criticism, and re-wrote the sheet, thanking his critic [...]. In a subsequent letter of Herschel, acknowledging further proofs, he first suggests the suppression of a passage respecting transversals, and then retracts the suggestion, and concludes with the words, “Au reste [For the rest] – the thing is charming, and I can only add, Go on and prosper.””<sup>57</sup>

While writing the *Elements*, in spring 1860 Hamilton entered upon a correspondence with Dr. Andrew Hart (1811-1890), and Graves writes: “from problems connected with a circumscribed pyramid, and tetrahedra in general, he rapidly advances to what may be called a new calculus, independent of Quaternions, though advantageously employed in connexion with them, the calculus, or instrumental machinery, of Anharmonic Co-ordinates; and on the 27th of February he begins what he himself calls a “prodigious” letter, which, becoming an extended treatise, reaches at last the 216th folio page of closely-written work, and is completed by a postscript of sixty-four similar pages, dated the following 28th of August.”<sup>58</sup> Some of the results arrived at were, during its progress, communicated to Dr. Salmon, touching, as they did, some of the problems published by him in his *Higher Plane Curves*, and he acknowledges their novelty and importance, while Dr. Hart in a letter, dated so early in the correspondence as April 6, says of them: –

“If your Anharmonic Co-ordinates should never be used again, they have already conferred a great benefit on geometry, by turning your attention to the large and much-neglected field of cubics, in which you have already filled many gaps, and placed in a new point of view a theory which we have been hitherto studying entirely through Salmon’s glasses. If you succeed in compressing so much matter into the modest limits of an “Appendix”, it will be a wonderful achievement in the art of condensation.” Graves comments in a footnote: “Such an Appendix is not to be found in connexion with the *Elements of Quaternions*, into the early part of which work are, however, introduced Sections dealing compendiously with both Anharmonic Coordinates and Geometrical Nets in Space. But from the fact that at the foot of page 34

<sup>57</sup> [Graves, 1889, pp. 121-122]. For Herschel’s “cry of distress” see also p. 2.

<sup>58</sup> Hamilton was certainly not the only mathematician writing out his work on so many pages; in 1861 he visited Thomas Kirkman [(1807-1895)] and Graves remarks: “That Mr. Kirkman was a labourer of thoroughness and perseverance akin to Hamilton’s own may be inferred from the following passage in a letter written by him to Hamilton in 1862. His field of investigation was ‘polyhedra’ [...]. Speaking of his results, Mr. Kirkman writes: – “July 15, 1862. The labour you may judge of when I say that the calculations cannot be written out in fewer than 800 close quarto pages. I have 500 pages of reticulations written, namely, the preparatory list of groups of reticulations that can be made out of nine particularized polygons charged with polyhedra of nine edges and under; and I have not by a great deal completed even these, in which I do not go beyond constructions of twenty-four edges.”” [Graves, 1889, pp. 135-136]. A quarto page was half a folio page.

reference is made to ‘Note A on *Anharmonic Co-ordinates*’, and at the foot of pages 35 and 56 to ‘Note B upon the *Barycentric Calculus*’ (*Nets in Space*), which Notes are non-existent, it would appear that the author intended to annex an Appendix giving further details as to both these subjects. It must be remembered that the *Elements of Quaternions* was published after the death of the author, and is in an incomplete state.”

In letters to De Vere “Hamilton gives to his friend an interesting aperfit of what he had been doing on this subject. “March 16. Within the last three weeks I have written quite an essay – not to say a treatise – on (what seems to me) a new scientific system, or method, of what I call “Anharmonic Co-ordinates”; and which, wonderful to tell, appears new, also, to all the geometrical friends whom I have consulted in our University, e.g. [Charles] Graves, Salmon, Ingram, Hart. It is strange that after a couple of millennia, a thought, which seems to be traceable to Euclid (through Pappus) should be found *now* to admit of a vast and unforeseen expansion. ...” Forwarding a copy of his sister’s poem on Columbus,<sup>59</sup> which his friend had asked for a month previously, he adds: – “March 17. ... One would think it was some heroic effort of virtue, my writing out a few lines of poetry for a friend: I put it off so long, and seem to make so much of work or fuss about it; although when I do begin, I experience really great pleasure in the act. If you could only see what quantities of less interesting (viz. mathematical) matter I write to my scientific correspondents! – much faster, indeed, including the composition, than my assistant, or my son, can copy them for me. But I suppose that a man has instinct, as well as reason; the  $\sigma\tau\omicron\rho\gamma\gamma\acute{\eta}$  [affection] of the animal creation exists, and shows itself with me, when a new conception in science has dawned upon my intellect, and is in danger of altogether perishing, if not duly incubated in its season. My last conception, of a geometrical kind, has taken my friends in Dublin – who, on such subjects, are admitted to hold a very high place in the scientific world – entirely by surprise ... But I expect to be quite cool again upon the subject in about a month. You once confessed to me that for a day or two after writing a new sonnet, you were not an impartial judge of it.””

Graves then gives two short “extracts from the long letter to Dr. Hart,” the letter Hamilton had called “prodigious”. The extracts were written in February and April 1860 and Graves remarks, as if feeling obliged to show that Hamilton could remain humble while being so complimented and clearly proud, that the extracts “have an interest derived from their recognition of more extensive knowledge than his own in modern geometry on the part of his mathematical colleagues in Trinity College. They are pleasing testimonies of his unjealous disposition, of his habitual desire to acknowledge points of superiority in others.”<sup>60</sup>

Apparently in the meantime not having written to De Morgan, in May 1860 De Morgan wrote: “If you are dead and buried, why do you not say so at once, like a man, instead of insinuating it in this roundabout way by solemn silence? What has become of you and of the *Manual of Quaternions*? I write because I want to know something about you. [...] If you do not write I shall circulate a report that you have shipped yourself to fight for the Pope. That worthy has recruiting serjeants, I am told, in Ireland, and I may as well dispose of you that way as any other.”<sup>61</sup>

<sup>59</sup> For Eliza’s poem see [Graves, 1885, p. 698].

<sup>60</sup> [Graves, 1889, pp. 123-125]

<sup>61</sup> [Graves, 1889, p. 560]

### Visiting and being visited

Although less frequent than when he was younger, also in his last years Hamilton regularly visited friends or was visited, although after 1861 he does not seem to have attended the annual meetings of the British Association anymore. He had missed the meeting of 1858 in Leeds due to Helen Eliza's illness, he did attend the meeting of 1859 in Aberdeen after which he visited Fulneck to take a recovered Helen Eliza home again, but he again missed the Oxford meeting of 1860. It is not known why; Graves' description of 1860 only consists of five pages in which the meeting simply is not mentioned.

In February 1860 Archianna had died "when she was staying with her sister Sydney in Dublin. The event called into active exercise his affection and sympathy towards both his sisters. After an interval it was followed, as had been the death of his sister Eliza, by a visit to the county of Wicklow. In that well-known region's diversified beauties he sought as before, and experienced, the restorative influences of nature." This visit may have been the short holiday in the summer of 1860; in July Hamilton wrote to De Morgan from Wicklow: "I am touring for a few days, with my daughter, and with a couple of cousins of ours from England, who happen to be with us at present. The scenery in this county of Wicklow is undoubtedly charming."<sup>62</sup>

In March 1861 Hamilton "seconded, with a gratifying tribute of appreciation, the proposal by Lord Talbot de Malahide [(1805-1883)] that Professor Charles Graves should for the ensuing five years be the President of the Academy." Hamilton then also accepted Charles Graves' nomination to be the senior vice-president but wrote to Charles Graves: "What I said in your presence to Dr. [William] Reeves [(1815-1892)] was, in essence though not in words, the admission of the natural feeling that having been for a while the first, it could be no object of ambition for me now to be the second in the Academy, yet I will say, on reflection, that it is a pleasure to me to be such for one year under you. For you will remember that when next year arrives, even if I should be then alive and well and on the Council, it will be in due course that my name should drop from your list of Vice-Presidents; and no member of the Academy, and least of all myself, could for a moment have imagined that any slight would have been intended, or conveyed, if you had lately used your prerogative otherwise than by appointing me."

In 1861 Hamilton travelled to England twice; the first time was in March when he was "summoned" to Cambridge to receive from the Council of the Senate of the University "as a mark of their respect and esteem, the honorary degree of Doctor of Civil Law." Graves remarks: "His visit to Cambridge brought him much pleasure. The ceremonial in which so honourable a part was assigned to him took place on the 21st of May." Among the "distinguished men who shared with him the honour" was, for instance, "Dr. Robinson of Armagh. [Hamilton] records that in the order of procession he came next after Lord Elgin [(1811-1863)], that he was in the speech of the public orator praised more than he chose to relate, and that before the banquet he was presented to the Prince of Wales, with whose manner – giving the impression of receiving rather than conferring honour – he was favourably struck. [Roderick] Murchison [(1792-1871)], [Edward] Sabine [(1788-1883)], and Robinson were old friends; and other old friends he found in Cambridge in Mrs. Robinson, her daughter Mrs. Stokes,

<sup>62</sup> See p. 19, [Graves, 1889, p. 126], [Graves, 1889, p. 561].



and Miss Mary Edgeworth, her niece, to whom were added Professors [James] Challis [(1803-1882)] and [John] Adams [(1819-1892)].<sup>63</sup> Dr. Whewell happened to be absent, and in a kind letter expressed to Hamilton his regret at missing him, and his pleasure that Lady [Everina] Affleck [(1807-1865), Whewell's second wife] had made his acquaintance." The second time Hamilton visited England that year was when in September 1861, "contended for as a guest by friends new and old, and this time received by Mr. Oliver Heywood [(1825-1892), a banker and philanthropist], Hamilton attended the Meeting of the British Association at Manchester, and on his return visited, at Croft Rectory, near Warrington, a brother mathematician, Thomas Pennington Kirkman, a graduate of Trinity College, Dublin, already favourably known to him by correspondence."

Some months earlier, in June 1861, Hamilton had had "the pleasure of receiving, for long converse during two days, his fellow-worker in Quaternions – Professor Tait. The record in his journal of this congenial intercourse shows that it was much enjoyed by him." "The following month of July was rendered notable to Hamilton by the appearance of the great Comet of the year, first seen by his son Archibald, amongst its earliest observers, on Sunday, the 30th of June, and then on succeeding nights watched for by himself. He notes, July 4, 1861: "It is certainly a very fine one and probably much superior to Donati's [Graves adds: 1858], although I have not yet seen it favourably. But I was greatly struck by the brightness of its nucleus, as seen through clouds, at 2 o'clock on Wednesday morning."

Graves continues: "On the 10th of the month the Astronomer himself, in an environment unusual to him, appeared before the public as presiding over a lecture, given at the Rotunda in Dublin, upon Japan [...]. Hamilton also, in the succeeding month, took some part in the public meetings, over which Lord Brougham [(1778-1868)] presided, of the [fifth] Social Science Congress. And he had the gratification of introducing to Lord Brougham his second son [Archibald] as a student in physical science, who had manifested original thought in investigations connected with earth-currents of electricity."<sup>64</sup>

"But the greatest gain brought to him by these meetings was his friendship, then first entered upon, with Dr. Charles Mansfield Ingleby,<sup>65</sup> who, taking advantage of his visit to the Congress, sought to be allowed to make the acquaintance of one whom he said that Englishmen regarded as the greatest of living Irishmen. Though accomplished in both branches of science, it was as a metaphysician rather than as a mathematician that Dr. Ingleby approached Hamilton. Their day of meeting was occupied with discussions on Kant and his philosophy – discussions which led to a correspondence." Still in August Hamilton wrote to Ingleby: "From your extremely obliging note received on Monday morning, I collected that unless I wrote to the contrary, as being otherwise engaged, &c., you would favour me with a visit this evening. I pray you to accept that impression as an excuse for my not having written to you since, though I might mention that I was working, on Monday, for example, for more than

<sup>63</sup> After the death of his first wife, Eliza Rambaut, Robinson had married Lucy Jane Edgeworth, Maria Edgeworth's youngest half-sister. Mrs. Stokes was Mary Susanna, daughter of Robinson and his first wife; she had married Gabriel Stokes (1819-1903), professor of Mathematics at Cambridge.

<sup>64</sup> For Archibald's investigations see footnote 46 on p. 232.

<sup>65</sup> In a footnote on a later page Graves remarks that "the Christian name of Dr. Ingleby is printed "Charles" instead of "Clements"". [Graves, 1889, p. 172]. Which in turn should have been "Clement".



twelve consecutive hours, on things connected with my forthcoming volume, the *Elements of Quaternions*." The evening was indeed "spent by the two friends at the Observatory in their first conversation on Philosophy."

From Tait's visit it is known that Hamilton thought he could finish the *Elements* by the end of the year; Graves writes that "his journal of the first day records: "I walked with him nearly to the foot of the lane. At parting he wanted to be quite sure what my own wishes were on the subject of our respective publications. I said that they could literally be expressed in two words – "Sixty-one, Sixty-two": meaning of course that I should have 1861 free to myself, and that he might have 1862 to do what he liked in." In a letter of 1862 (August 29), Hamilton writes to Tait: "You are perfectly at liberty to refer [Graves adds: in an intended contribution to a scientific periodical] in any manner you choose to my forthcoming volume, and generally I have entire confidence in your discretion. The only thing I asked was that you would not publish a separate work before the appearance of the *Elements*. I shall be charmed, for both our sakes, to set you free as soon as possible.'" Hamilton was indeed working very hard, once even working for "at least thirteen consecutive hours."<sup>66</sup>

### Gout, a new grant and a weak health

Having had several fits of gout since the first one in England in 1856, in May 1861 Hamilton wrote to De Morgan: "For my own part I have been really rather *wishing* for a fit of the gout this spring; but it has not come. When I have one – which has happened some few times already – I think that I have borne it pretty well, and philosophically: although the physical pain was very great. But it did not disturb my mind, and scarcely interfered with my writing. And I was so kindly nursed, and looked to, that I have positively quite pleasant recollections of the fits."

Hamilton had, apparently, received a new grant, yet Graves does not mention whether Hamilton had asked for it or not, he just writes that in spring 1862 "when his *Elements* were approaching the five hundredth page, Hamilton was brought into a state of serious anxiety by the exhaustion of the grant which the Board of Trinity College had made towards defraying the cost of printing." Hamilton wrote several letters to Hart, in which he made the remark that the book had costed "not less than ten thousand hours" and asked "has Ireland ever produced a new branch of Mathematics, or, say, only a new Calculus before?" He succeeded; "on the 14th of June his old friend Dr. Lloyd had, as acting Registrar, the gratification of communicating to Hamilton the consent of the Board to advance a second £100 towards the printing of the *Elements*, accompanied, however, by the conditions that Hamilton was, as he himself had proposed, "to pay the remainder of the cost, and that the foregoing sum was to be paid by the Bursar when the work was completed." In returning his best thanks through Lloyd to the Board, Hamilton wrote: – "It will make the publication of the *Elements of Quaternions* in a satisfactory form possible; and it is my business to look to the rest. It will protect me from actual pecuniary loss, and that is about as much as I look for – except in the way of fame for the College and myself."

According to Graves "notwithstanding these anxieties," in May 1862 Hamilton was working "with unremitting zeal," and he wrote to Graves: "I am still intensely

<sup>66</sup> [Graves, 1889, pp. 130-136], [Graves, 1889, p. 172], p. 236. According to Graves Hamilton had, at the end of October, incidentally recorded this number of hours.

occupied with my new work, the *Elements of Quaternions*, which I consider to be incomparably superior as a book to the *Lectures*, although the earlier one may perhaps be considered to possess a greater interest in the History of Science.” Graves writes: “It may here be mentioned that at this time Hamilton was a very solitary labourer. Except what the Observatory assistant, Mr. Thompson, could but rarely render him, he had no help in keeping copies of mathematical work or correspondence. His manuscript books had some years previously borne witness to the assistance dutifully rendered to him in this way by his two sons; but now both of them had left their home. His eldest son had, in 1862, accompanied his aunt Sydney, his father’s only surviving sister, to Nicaragua [...]; and the younger son, who, for some time after his ordination in 1860, had served as curate of his native parish Castleknock, and while so acting resided at home, had now entered into clerical engagements at a distance. Occasionally, indeed, the feminine hand of his daughter appears in those manuscript books, requisitioned on an emergency to copy a letter or even a scientific paper, but usually the labour is all his own, and it must have been enormous.”<sup>67</sup>

In July 1862 Kirkman, being simultaneously mathematician and rector of Croft, wrote to Hamilton that he wished that he “had the good fortune to be nearer to such a mathematician as you; for it would be of immense advantage to have the profit of conversation with such a man. It is a great loss to me to live cut off from all scientific intercourse.” Hamilton replied: “It would be very difficult for me to express, without having the air of flattering, how much I admire your mathematical genius and discoveries; but it is a real pleasure to me to be allowed any little opportunities, such as these, of testifying my respect and good-will. Some time or other I hope that you and Mrs. [Eliza Anne] Kirkman [(1815-1895)] may be guests of Lady Hamilton and myself here. But it is only fair to apprise you that my wife, like yours, uses an “Arabian” for herself, and that we have no carriage, &c. In short, I lead a very retired life; which, as I grow older, I devote more and more to study. I might now find a difficulty in getting up a dinner-party for you, though I have given a good many in my time. Perhaps I may just be allowed to add that I am conscious of not having been in my normal state of health during the whole of my last visit to Manchester.”<sup>68</sup>

### Another scientific interruption

In the autumn of 1862 Hamilton’s work on the *Elements* was “interrupted by a scientific investigation of a completely different character. The Archbishop of Dublin, Dr. [Richard] Whately [(1787-1863)], had encouraged his son-in-law, Mr. C. B. Wale [(1817-1864)],<sup>69</sup> to act upon the wish of a friend by requesting Hamilton’s opinion on two essays by Friedrich Gottlob Röber [(.. -1861)], the object of the first of which was to set forth a geometrical construction of the regular heptagon.” Hamilton wrote in one of his manuscript books: “I understand the author to say, in his preface, that his deceased father, who seems to have been Professor of Architecture in the Academy of

<sup>67</sup> [Graves, 1889, p. 564], [Graves, 1889, pp. 140-141], [Graves, 1889, pp. 147-148]. Graves mentions that Sydney wrote to Hamilton that she “desired much the rehabilitation of the Observatory at Bogotá in Columbia [...], and even entertained the idea of offering her own services towards the undertaking, as accustomed to observe, and to make reductions of Astronomical observations.”

<sup>68</sup> [Graves, 1889, p. 136]. Hamilton had visited Kirkman after the meeting of the British Association in Manchester in September 1861.

<sup>69</sup> In 1848 Charles Brent Wale had married Henrietta Whately, Richard Whately’s third daughter. Her birth and death years do not seem to be publicly known.

Dresden, and to have died at Paris in 1833, conceived himself to have explained the construction of the ancient Temple of Edfu, as being connected with the Inscription of a Regular Heptagon in a circle, on a plan which he had discovered.”

Hamilton found the construction, in many hours on two or three successive days using, in order to attain “a high degree of accuracy,” fifteen decimal places, not to be “mathematically perfect, though Röber seems to suppose it to be so.” Yet, using this rule of constructing it, on the earth’s equator the error would only amount to about 50 feet, which meant that “in practice the error does not exist at all. I do not think that experiments of measurement, &c., could be so conducted by men, at least in the present age, as to prove to sight that there was any error. For practical purposes, then, the elder of the Röbers, or the old Egyptian sage whose secrets he supposed himself to have divined, has done the impossible.” Hamilton was delighted; “The practical success of the rule is to me absolutely wonderful: and it is long since any discovery in science produced in me such a sensation of surprise. It enables me more than before to realize what we are told of the “wisdom of the Egyptians”.”

During this investigation Hamilton had used a method “he had long known theoretically, but had not practised. [...] [De Morgan] furnished Hamilton with some improvements in the manner of working with it, and in a sort of rivalry they both proceeded to calculate to 22 places of decimals the cos. of  $\frac{2\pi}{7}$ , which, working independently, they found to be = 0.6234898018587335305250. Hamilton’s manuscript books afford striking evidence of the amount of numerical computation requisite to arrive at such a result: they show also that he was not content with working upon the particular problem before him, but that other cubic equations furnished him with material to which he vigorously applied the same method: in one case carrying out his calculation to 28 places of decimals. Yet this laborious work was in a sense play to him.”

On the 17<sup>th</sup> of September Hamilton wrote to De Morgan: “All this has quite distracted me from the *Elements*.” And on the 26<sup>th</sup> he wrote: “I must now drop arithmetic for awhile; though the work gone through has rather refreshed than fatigued me.” Graves adds: “In the autumn of the following year he again corresponded with De Morgan on this subject, and prepared the memoir respecting it, which was printed in the *Philosophical Magazine* for February, 1864 – his last contribution to that periodical.”<sup>70</sup>

## 7.4 A quite unimpaired mind

In 1863, when Hamilton was fifty-eight and only had two more years to live, his investigations were still so new that, when he made inquiries to Hart and Salmon as to

<sup>70</sup> [Graves, 1889, pp. 142-147]. Röber, F. (1854), *Beiträge zur Erforschung der Geometrischen Grundformen in den Alten Tempeln Aegyptens, und deren Beziehung zur Alten Naturerkenntniss*. Dresden. Verlag von Woldemar Türk. It can be read online at the *Bayerische Staatsbibliothek / Münchener DigitalisierungsZentrum*. [http://reader.digitalisierungs-zentrum.de/de/fs1/object/display/bsb10221933\\_00001.html](http://reader.digitalisierungs-zentrum.de/de/fs1/object/display/bsb10221933_00001.html). Hamilton, W.R. (1864), On Röber’s Construction of the Heptagon. *Philosophical Magazine*, Fourth Series, 27 (180): 124-132. <https://archive.org/details/s4philosophicalm27lond>. Graves mentions that “the subject of the Second Essay was The Pyramids and Parthenon”: Röber, F. (1855), *Die Aegyptischen Pyramiden in ihren ursprünglichen Bildungen, nebst einer Darstellung der proportionalen Verhältnisse im Parthenon zu Athen*. Dresden: Verlag von Woldemar Türk. [http://reader.digitalisierungs-zentrum.de/de/fs1/object/display/bsb10221934\\_00005.html](http://reader.digitalisierungs-zentrum.de/de/fs1/object/display/bsb10221934_00005.html).

whether some results had been anticipated, he was answered by Salmon on the 1<sup>st</sup> of October: "You so seldom fall on other peoples' track, that when I met Hart a couple of days ago, and he told me you had been asking him whether certain theorems you had arrived at were new, I said: "Oh, tell him they are new. You will be quite safe.'"

Shortly thereafter Hamilton again stepped away from the *Elements* to do something else: "In a letter [...] to his son Archibald (now, it will be remembered, a clergyman), who had been making some algebraical calculations, and sought for information respecting them, he supplies him with [a] computation [...] in which he used a kind of contracted multiplication, which, he says, he picked up from his assistant, Mr. Thompson." [...] Hamilton wrote: "In general, I take all precautions for accuracy, and advise you to do the same. Whatever you do calculate – and you know you need not do so more than you choose – let it be carefully done. [...] Only don't spend too much time on such [calculations]. How much can be spared you can judge for yourself. I know that a complete change of mental occupation is occasionally useful and almost necessary. My book will get on none the worse for my having been lately thus working at arithmetic."

Hamilton's occupation with arithmetic continued for a while since his neighbour and nephew, John Rathborne of Dunsinea, had a self-taught employee, Mr. Boyers, who had devised a system of contracted multiplication which Hamilton considered "new and ingenious." It had, according to Hamilton, "the advantage of giving a succession of approximations, each better than the preceding, but required rather more of mental calculation in passing from step to step, yet not more than would be found easy by a practised calculator."

In the meantime, the fits of gout got worse. "In this winter [1863] Hamilton was troubled by that inherited malady of gout, by which, as we have seen, he was visited at Cheltenham in 1856, which had subsequently recurred at intervals, and which was ere long to prove fatal to him." In February 1863 he was visited by De Vere, and after the visit Hamilton wrote: "I enjoyed very much your visit, and my walk with you, and you may perhaps be glad to know that though (from want of recent practice) I felt since some stiffness in my legs, the feet have been quite uninjured, or, more plainly, no return of gout has been provoked. I wish you would try a fit. For one's philosophy and temper it is an admirable exercise; and to some constitutions it seems to be useful. I had been wearying for a slight touch again, when I was taken at my word last Christmas. My intellect, such as it is, appears to me to be made even clearer by sickness or bodily weakness, when such comes. The physical effect, however, is, that although I can scarcely spare more than a moment to attend to a twinge of the gout – painful as that certainly is – I cannot work, when an invalid, for so many hours consecutively, as when in full and normal health. A feeling of *fatigue* comes on. But I call myself quite well now, thanks partly to your visit, and remain, my dear Aubrey, your old and affectionate friend."

Early in 1863 Hamilton was visited by William, the eldest son of Herschel, and Graves gives an "extract" of a letter written by William Herschel on his return home. "Thanking for a letter of his father forwarded to him [presumably by Hamilton], [he] quotes from it the following message relative to Hamilton's book: "When it is complete, as I hope it soon will be, I shall take it up ab initio [from the beginning], though without great hope of mastering it in the few years that remain to me after 72! But I anticipate for him (Sir William) a real triumph in its publication.'"

Despite his bad health, 1864 was a year of “enormous diligence”. In May Hamilton wrote to Ingleby: “Your *Part I*. [Graves adds: of Dr. Ingleby’s *Introduction to Metaphysic*] above acknowledged as arriving, has interested me extremely. ... It is long since I have read metaphysics, as in any sense a student; but the Paper quite revived my old interest in such subjects. I felt that I examined better on the Tuesday in consequence of having so spent the evening previous; and on the following Wednesday, when I went to dine with a co-examiner, Professor Jellett [(1817-1888)], at whose house (seven miles at least from this place, according to my estimation) I met, among other pleasant people, my old friend Dr. Lee [(1815-1883)], now Archdeacon of Dublin, I took *Part I*. with me to read in the cab, and to think on; and on returning to this Observatory, at about half-past twelve, sat up for at least two hours, to read and think on it again.” Obviously, even in his last years, next to working extremely hard on his *Elements*, Hamilton studied metaphysics, enjoyed mathematical distractions, visited and was visited, examined students, and dined out.<sup>71</sup>

And he did allow himself a short holiday in company with his daughter; “Lady Hamilton, though wonderfully recovered from a recent illness, [is] not feeling herself quite strong enough for the exertion and fatigue – which last was not altogether to be despised by ourselves, especially as we chose to travel back to back on an outside car.”<sup>72</sup> Helen Eliza “notes that in this excursion, while evident tokens appeared of the decline of his muscular strength, his bright companionableness (shown, for example, by discussions with an intelligent Protestant carman on the parable of the Unjust Steward) and his youthful spirit of enjoyment were quite unimpaired.”<sup>73</sup>

The writing of the *Elements* seemed to get out of hand, but when in November 1864, the *Elements* “now reaching to page 696,” Hart tried to hurry Hamilton to finish the book by leaving “physics for a second volume,” Hamilton sent him some proofs, whereupon Hart answered: “I hasten to retract any objection I made to inclining Physical Applications in the *Elements* [...]. I had no idea that you could condense so much into three pages, and I should be very sorry indeed that such a full and concise theory of the Statics of a Rigid Body should have been suppressed, especially as [some ideas] are new to me and perhaps to others also. If your dynamical applications are equally concise and pregnant, they will certainly form an admirable conclusion to the Work.”<sup>74</sup> This must have been an enormous confirmation for Hamilton, although he doubtlessly would not have changed his way of working if Hart had reacted otherwise.

### 7.4.1 Metaphysics, poetry and mathematics

“For a considerable time in the course of [1864] Hamilton’s mind turned to metaphysics; and Plato, Aristotle, Descartes, Berkeley, Kant, Coleridge, Sir W. Hamilton of Edinburgh, and Dr. C.M. Ingleby furnished him with matter of thought.” Graves gives letters from Hamilton to Ingleby about metaphysics and Hamilton’s double vision and, “in natural connexion with the [...] Ingleby correspondence,” a letter

<sup>71</sup> [Graves, 1889, pp. 153-154], [Graves, 1889, p. 173], p. 237

<sup>72</sup> An ‘outside car’ was a carriage with two wheels, drawn by one horse, with up to four passengers sitting with their backs towards each other, their feet on shelves above the wheels.

<sup>73</sup> [Graves, 1889, p. 164]. The parable of the Unjust Steward is one of Jesus’ parables, told in one of the Canonical gospels of the New Testament.

<sup>74</sup> [Graves, 1889, pp. 166-167]

to Catherine's eldest son James William Barlow (1826-1913). According to Hankins, in 1848 Hamilton had "coached him in mathematics," and together they had attended the 1850 meeting of the British Association. They were apparently still in close contact; James Barlow, now Fellow of Trinity College, had lent Hamilton a book written by Sir William Hamilton of Edinburgh. Next to discussing this book, Hamilton commented on its writer: "Of Sir William Hamilton I am prepared to think even more highly than I already do. Were *you* not (I think you were) at, at least, one of the tea parties in Edinburgh in 1850, at Sir William Hamilton's house, to which we were invited together? I knew that he was an *anti*-mathematician; and had made up my mind that I would submit without reply to any attack on mathematics, from one who was so much older and more celebrated than myself, and was in infirm health besides. But Sir W.H. was so entirely the gentleman, as not to put my forbearance to any such test; and I still preserve and value the rather rare book, of somewhat modern Latin poetry, in which Leibnitz figures extensively, and which he was so good as to request his Lady Hamilton to fetch down for me from a shelf known to her. Well, I retain all my old respect for Sir William Hamilton, of Edinburgh, as a gentleman, and also as one of the most learned metaphysicians of modern times, at least within these countries. As regards the logical controversy between him and De Morgan, about the quantification of the predicate, and all that, I do not presume to have even an opinion, at present: perhaps, two or three years hence, I may be led to form one."<sup>75</sup>

Graves then gives a letter to Hart, written on the 30<sup>th</sup> of June 1864, apparently as a means to react to the article written by Ingleby in 1869, in which Ingleby claimed that Hamilton had stated "I am a poet." "The fact is, that one of my early tastes was for metaphysics, and something has lately occurred to revive it. Another was for Eastern languages; and I chanced yesterday to light on the first sheet of a "Persian Grammar", written by myself forty years ago. These things, with others, may occasionally relax the bow: "non semper tendit [not always bend] ..."; but "many tastes, one power" – and my only *power* is mathematics."<sup>76</sup>

Graves comments on this statement: "This verdict, so deliberately pronounced by Hamilton, near the close of his life, upon his special faculty and function in relation to other constituent elements of his intellectual being, is in remarkable accord with the expression used by him at the commencement of his public career, when, in a letter to his sister<sup>77</sup> he spoke of his interest in Science as being his master-passion.

<sup>75</sup> [Graves, 1889, pp. 171-172], footnote 10 on p. 5, [Hankins, 1980, p. 348], [Graves, 1889, p. 183]. See for the 1850 meeting of the British Association p. 269 and p. 473. For the controversy between De Morgan and Hamilton of Edinburgh see also p. 40, for their mathematical discussion see [Hankins, 1980, pp. 385-386].

<sup>76</sup> [Graves, 1889, p. 186]. For "I am a poet" see p. 44. With power being defined as "what is within reach to achieve excellence," Hamilton had reached the conclusion that poetry was not his power in 1825, in a letter to Miss Arabella Lawrence, see pp. 61-60, and again in a letter to Nimmo in 1827, see p. 68. Although in the letter to Miss Arabella Lawrence he did not literally use the word 'power', he did clearly conclude that mathematics was his power, something he repeated in one of the "extracts" of the 1848 letters to Catherine, see p. 271.

<sup>77</sup> Graves does not give this letter. Seeing, in 1828, William and Fanny Edgeworth working together in astronomy had "stirred into increased warmth his desire" that his "own sisters should be to him companions and assistants in his astronomical work; and, accordingly, he writes from Edgeworthstown letters pleading with all three, and especially with Eliza, to consent to his wish. The letter to Sydney has survived; that to Eliza, which is not forthcoming, must have been too urgent in its tone, for it called forth from her a reply showing that she was hurt by what she considered distrust of her devotion to him, and claiming some consideration for her own partiality for poetical



Doubtless the word ‘others’ of the clause, “These things with others,” in the passage above quoted, was intended to include Poetry: and the passage is therefore scarcely compatible with a declaration which has been attributed to him, “I live by mathematics; but I am a poet.” I find it difficult to suppose this to be an accurate report of his words. He might very conceivably have said, “What *I am* as a man is more shown by my poetry, which reveals the inner current of my life and my affections, than by my mathematical works; as also by my metaphysical, ethical, and religious opinions, which indicate my standpoint in Philosophy”: this it would have been natural for him to say, for he felt it acutely, but we may consider as certain that he would not, on the ground of the occasional expression of such opinions in letters and lectures on Astronomy or of the occasional relief of his feelings afforded by his poetical compositions, have claimed a place in the rank of acknowledged Philosophers or Poets. He may, indeed, have been conscious of being potentially a Poet and a Philosopher, and that, I think, is all that he can ever have intended to express; but however largely he may have felt that he possessed the elements which constitute either the Poet or the Philosopher, it is satisfactory to read his clear recognition that his chief faculty was the power of dealing with mathematical truth, and to extend its boundaries his highest function.”

To corroborate his opinion Graves gives a letter which Hamilton wrote to Tait, apparently in 1858: “It is not fair to ask my friends to be sincere about [my sonnets]. That they have many faults I very well know; and take a sort of pride (or perhaps vanity) in knowing it: because that point of self-knowledge appears to prove that I have kept too good company, personally and intellectually, to be satisfied with any poetical production of my own. But Francis Edgeworth – a Cambridge man, although an Irish one – a younger brother of Miss Edgeworth, though by a different mother, who was during his life a great friend of mine, and for whose memory I retain respect and love, used indeed to criticise, very sincerely, some of my youthful verses; but wound up by saying, “After all, Hamilton, your poetry will not disgrace you.””

But in showing that, according to him, Hamilton could only achieve the highest ranks through his mathematics, Graves seems to get slightly carried away again since he concludes from a letter to himself, written in 1855, that Hamilton felt “painfully” the “*inferiority* of mathematics [Graves’ italics], exemplified by the works of the highest mathematical genius, to corresponding works of poetical genius, through the absence from them of elements immediately affecting the spirit and life of man.”

Yet, it can seriously be doubted whether Hamilton really felt it that way; Graves gives the letter, and what Hamilton wrote was: “My Dear Robert Graves, – I have many social and affectionate debts to pay you, but it suddenly presses on my mind, that although (thank God) I am in excellent health just now, yet I ought to put beyond the chances of mortality my written testimony to the discriminating generosity of our great and departed friend, the Poet Wordsworth. He has been thought by some to have been unwilling to allow praise to other poets – and I never could enter, nor pretended to enter, into his criticism on Burns’s “Scots wha hae wi’ Wallace bled”<sup>78</sup>

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composition. His answer is a letter which I regret that I cannot reproduce, because it signally proves his justice, his warmth of heart, his wise consideration of all relative circumstances, and his power of giving to all these elements forcible and eloquent expression. But it is throughout too private and personal for publication.” [Graves, 1882, p. 286]. See also footnote 4 on p. 53.

<sup>78</sup> This Scottish song was written by Robert Burns (1759-1796); Sir William Wallace (ca 1270-1305) was one of the leaders in the Scottish independence wars which had started in 1296. Being



– but you know that Wordsworth admired and loved Burns, and could appreciate him, and deeply and long regretted that he had not been acquainted with him. Mr. Wordsworth (we talk still of Mr. Pope)<sup>79</sup> gave me a copy of his letter on the subject of Robert Burns, which expressed no stinted sympathy. Every one now admires Alfred Tennyson [(1809-1892)] – there is no merit now in praising him: but you will bear with me as an old friend while I say that I have lately been reading, over and over for I do not pretend to calculate how many times – the “*Princess*”. I may indulge the hope, at moments, that as I now read, with profit and delight, the book of the great Grecian Mathematician, Apollonius of Perga, after an interval of two thousand years from its composition, so my own volume [the *Lectures*] (of which I should be happy, if you thought you could manage it, to present Mr. Tennyson with a copy) may survive even several centuries – nay, that, as the earliest work in its own department, it may exist till books shall be no more. But it deeply presses on my reflection how much wiser a book is Tennyson’s “*Princess*” than my “*Quaternions*”. In saying all this I feel that I only echo what Wordsworth said to me while we were boating on Windermere in 1830 (I seem to see the splash of the oar). The words I do not presume nor pretend to repeat; but the spirit certainly was, that in Alfred Tennyson, young a poet as he then was, there was a man of the highest promise. I am, my dear Robert, your very old and very affectionate friend, William Rowan Hamilton.”<sup>80</sup>

### Again financial troubles

In November 1864 Hamilton again faced financial problems due to the writing of the *Elements*, of which chapters were printed regularly and therefore the cost of paper and printing had to be paid. “He shrunk from applying to the Board of Trinity College for more pecuniary assistance, and, in prospect of negotiating with publishers, thought that attestation from some high quarter to the value of his researches might aid him in gaining favourable terms.” He therefore wrote, in December, a letter to Robinson of Armagh Observatory: “I am, as I hope, approximating to the Moment of Projection – or, in plain English, drawing to the time of publication of my long and laborious work, entitled the *Elements of Quaternions*. It is only, however, within the last two or three days that I have opened negotiations on the subject with my old friend George Smith (Hodges, Smith, & Co.),<sup>81</sup> and I have not seen him since I wrote last week, partly because I am hampered by a very heavy cold. But it is arranged that I call upon him, if possible, on Wednesday next (the day after to-morrow). The total expense of the work – which is not yet quite ready for publication, though very nearly so – will have amounted to about £400, whereof the College will have kindly borne £200, that is about one half. The remainder, even if there should be no remuneration, however small, to the author, may well deter a cautious publisher.

convicted of high treason he was gruesomely executed.

<sup>79</sup> Alexander Pope (1688-1744) is perhaps most widely known for his ‘Essay on criticism’.

<sup>80</sup> [Graves, 1889, pp. 186-188]. In 1847 Tennyson published the poem ‘The Princess’, in which the story is told of princess Ida. She refused to marry because of the servitude of women in marriage.

<sup>81</sup> George Smith and Hodges were booksellers for the Irish Archaeological Society and later publishers for the University. Smith seems to have paid substantial amounts for both the *Ordnance Survey of Ireland* and the translation by O’Donovan of the *Annals of the Four Masters*, see footnote 8 on p. 215. Although George Smith’s addresses can be easily found, his birth and death years do not seem to be known, or publicly accessible. He may have died in 1869, since the publishers at 104 Grafton Street changed that year from Hodges Smith & Foster to Hodges, Foster & Co.

"Quite lately Dr. Hart – who, as Senior Fellow, Bursar, and Friend, has watched the entire progress of this last work of mine – has been pleased to write to me the kind note of which I enclose a copy made by my son William Edwin. ... Dr. Hart and Professor Tait have been in fact the only persons to whom I have sent copies of the printed sheets regularly. But I indulged myself lately by sending to you five half-sheets of my Contents, and also the last printed half-sheet of the *Elements* themselves. And it seems not impossible that even those may have served as some materials for forming an opinion on your part. If you can honestly say – and I know that you will not say it otherwise – that your general impression is favourable to the work, and especially that you think it treats old and celebrated subjects of science from a new point of view, I shall be glad; but you see that to render your reply useful, it should be prompt.<sup>82</sup>

"For my own part, on reading over lately those Essays of mine in the *Philosophical Transactions*, which won for me, thirty years ago, the applauses of the whole scientific world – so much so that I have been quite tired, though of course flattered, by meeting so many references since to "les équations Hamilton", &c. – my feeling was that I was not ashamed of those old Memoirs; but that they belong to a past age of Analysis, so completely do Quaternions appear to me to furnish an ἀνακαίνωσις [renewal] of mathematical, and, through it, of physical science."

"December 6. – I find that I omitted to enclose, in my packet of yester-evening, the copy of Dr. Hart's note, which I now send. Of course Dr. Hart could have no motive to flatter me, and the warmth of his expressions is to be traced to a sort of penitence for his having very strongly, though with all kindness, urged me previously to let the *Elements* appear, as a purely mathematical work, all physics being reserved for some future occasion. But I am too old to trust to the future.

"We all enjoyed much a recent visit from Francis Edgeworth – who permits me in conversation to call him "Frank" – for to me there can be no second "Francis". With kind regards to Mrs. Robinson and to Mrs. Stokes, when you can forward them, I am &c."<sup>83</sup>

Robinson, who had been elected a Fellow of the Royal Society of London in 1856, answered two days later: "I am very glad to find that by the approaching publication of the *Elements* we shall be put in possession of your latest development of this magnificent branch of Analysis. As far as I can judge from the proofs of the Contents, which you kindly sent, it will be of great use in making more generally accessible the wonders and the wealth of the field which you have so happily opened. The Statical and Dynamical applications of it in §416 and §417 are almost startling from their brevity, yet power and extent. I hope nothing may occur to delay the appearance of the book, and in this I am sure all my mathematical friends will heartily concur. I fear

<sup>82</sup> [Graves, 1889, pp. 167-168]. In June 1864 Hamilton bought himself a stereoscope, see footnote 10 on p. 5, which would indicate that his problems did not concern the small amounts needed for daily life.

<sup>83</sup> [Graves, 1889, p. 167-169]. "Frank" was Francis Ysidro Edgeworth (1845-1926), a son of Francis Beaufort Edgeworth and Rosa Florentina Eroles, and a brother of William, Mary and Richard Edgeworth, see p. 234, for William see also p. 369. According to Graves in April 1828 Maria Edgeworth had made a proposal, which Hamilton had to decline, "that [Hamilton] should receive as a mathematical pupil her brother, Francis Beaufort Edgeworth, with whom he had already become acquainted, and whose poetical and philosophical genius would have rendered him a peculiarly interesting and congenial companion. Such, indeed, he did become afterwards to Hamilton and his sisters, as far as occasional visits to the Observatory, and intercourse by letter, allowed."

the Royal Society is not allowed by its laws to give pecuniary assistance to publications with which it is not officially connected; otherwise I think an application to it would be successful. I congratulate you on this conclusion of your great work: not as a final resting-place, however, for the field is infinite."

Almost two weeks later Hamilton wrote again to Robinson: "I regret that I have not yet thanked you for your kind letter of ten days ago. It was alike honourable to you and to myself. I have not yet attempted to make any use of it; but have allowed two recent guests of mine to read it. ... My last visitor has been the Rev. Robert Perceval Graves, brother of Dean Graves, and a very old and dear friend of mine, who slept here last night and left me to-day. The room which he occupied, and which other guests have occupied lately, shall be very much at the service of Mrs. Robinson and you, if you should pay me the compliment of spending a few days and nights here, when the weather becomes finer. I am," &c.

"P.S. When I know more, I shall mention more, of the prospects of my book. Meanwhile, like Milton, I bate no jot of heart or hope – except as regards money, which is the least important item in the matter."<sup>84</sup>

### A poem by Archibald, and a mathematical discussion

"Writing on the second day of [1865], the last year of his life, Hamilton begins thus a letter to his younger son: – "It is a solemn thing, but I do not find it a painful one, to enter on a new year. I wish you many happy returns. It was my hope to have gone to Castleknock [to church] yesterday, but my cough was by no means so far gone as to make that safe." [...] To the same son, then serving as a curate at Clogher, he conveys his approbation of a sonnet, which on this account, and because of its upward-pointing significance, now specially congenial to the father's thoughts and feelings, I place [here]."<sup>85</sup>

#### TO A LARK SINGING OVER SNOW.

Sweet bird, that nigh to Heaven's blue portal singest  
 Above the snow-clad Earth, thyself unseen,  
 And, free to roam where man not yet hath been,  
 Sweet hope to us from unknown fountains bringest,  
 A mild reproach to me thou downward flingest.  
 What share hast *thou* in brighter days to come?  
 This prison Earth must be thy lasting home,  
 Not that blue vault to which thou freely springest.  
 While thankless I, with idle hands, sit dumb,  
 Nor join the bird's glad song, the insect's hum;  
 While Heavenward my poor thoughts so seldom rise,  
 So faintly knock, so hardly enter there,  
*Thou* hast the present entry of the skies,  
 But *I* the *Hope* that makes those realms so fair.

Graves then gives a correspondence about work of MacCullagh and Cayley on the wave theory of light, or vibrations of the ether, containing letters by Hamilton,

<sup>84</sup> [Graves, 1889, pp. 168-169]. Charles Graves had become Dean of Clonfert in 1864.

<sup>85</sup> [Graves, 1889, pp. 193-194]

Salmon, Jellett, and Cayley. Graves motivates this insertion by writing: "The following correspondence is upon an important mathematical theorem treated of by Hamilton in articles at the end of the *Elements* of Quaternions. I introduce it here mainly on account of its personal interest. It puts on record Dr. Salmon's judgment of what we may call the pœne-infallibility [almost-] of Hamilton in mathematical calculation; Hamilton's real unwillingness to be a correcting critic of the work of another mathematician; his anxiety to do all justice to the powers and attainments of the great mathematician [Cayley] with whom he is thus brought into contact; his active care to guard the rights in discovery of MacCullagh, and to acknowledge the anticipation by MacCullagh of a theorem he had thought to be his own; his expressed obligation to Professor Jellett for enabling him to do this; his forwardness to make Mr. Cayley acquainted with all the facts; and, finally, the knightly disposition of the latter to accept the rectification."

For clarity it should be noted beforehand that another one of Graves' objectives to give this discussion is that in the printed form of the *Elements* a sentence about MacCullagh is missing. To understand why this would be so important, it must be known that MacCullagh had, in 1847, committed suicide. In 1852 Hamilton wrote about this, and about the influence it had on him, to De Morgan: "I knew that you had preceded my friends, the Graveses, in your particular conception of triplets, and that I had preceded you in the general conception of sets, and was anxious that I should not seem to be greedy of praise for myself, nor to let my old personal regard for others make me unjust to the rightful claims of you, who were, even as far as letters had gone, at that time a comparative stranger."

"Then again – but this is a delicate point to touch on – I had been made cautious, perhaps sensitive, by my intercourse with poor MacCullagh, who was constantly fancying that people were plundering his stores, which certainly were worth the robbing. This was, no doubt, a sort of premonitory symptom of that insanity which produced his awful end. He could inspire love, and yet it was difficult to live with him; and I am thankful that I escaped, so well as I did, from a quarrel, partly perhaps because I do not live in College, nor in Dublin. I fear that all this must seem a little unkind; but you will understand me. I was on excellent terms with MacCullagh; was the reporter (of course an admiring one) on his first communications to the Royal Irish Academy; spoke of those early papers of his, in 1832, to the British Association, when it first met at Oxford; took pains to exhibit the merits of one of his papers on light, in a (subsequently printed) Address from the Chair of the R. I. A., on the occasion of presenting to him a gold medal in 1838, the first during my Presidency, and for the awarding of which to him I had previously spoken and voted in Council, as against a paper of my own [...]; wrote on his melancholy death the sonnet herewith enclosed; followed his coffin on foot from the College through the streets of Dublin; co-operated in procuring a pension for his sisters; and subscribed to the MacCullagh Testimonial.

"He was one of the very first persons to whom, in the Council-room of our Academy, on the 16th of October, 1843, I showed the then just born equations involving  $i$ ,  $j$ ,  $k$ . At that time they seemed to him quite new; but about a year afterwards he worked himself into a fever of suspicion, that I had in some way stolen them from a "question" of his own, which was, it seems, proposed by him to the candidates for Fellowship in Dublin, in 1842, and which certainly connected, in a very remarkable way,

the ordinary  $\sqrt{-1}$  with an ellipse in space. [...] In this instance, however, as before about the conical refraction, he came to acknowledge my originality, and not merely my independence or priority, but that he had failed to see the things I saw, although it may be supposed that a little farther thought might have enabled him to see them. And it is naturally a pleasant, or at least a comforting reflection, to me, that Dr. Stokes – an eminent Dublin physician, who is also an appreciator of genius, and had poor MacCullagh to spend what was the last evening of his life with his (Dr. Stokes’s) family and himself, but did not, at that time, apprehend any immediate danger – informed me, as we walked side by side in that funeral procession through Dublin, that MacCullagh talked for a long time (he said an hour) about the quaternions, as a remarkable discovery, which he *then* attributed entirely to me. Still, it is possible that his former suspicions (arising, I believe, chiefly from the fretfulness of ill-health) may have made me, to this day, a little nervous about being *suspected*.”<sup>86</sup>

Graves mentions that the correspondence in 1865 began with a letter “from Dr. Salmon (Feb. 10, 1865), in which he writes: – “... I believe you know I am printing a second edition of my book on surfaces. I have just added a note referring to your explanation of the lines of curvature through an umbilic on a quadric. I perceive these are valuable things which you have added to the theory of twisted curves. ...”

“Hamilton, in his reply (Feb. 13), after expressing his gratification, reports, in an important paragraph, his position in his own work (*Elements of Quaternions*): – “I am at more last specimens of physical applications of quaternions, and am treating briefly of Fresnel’s Wave [...]. But I have ready, in advance, as another specimen of physical optics, an article on MacCullagh’s Polar Plane: after which I intend to devote scarcely more than a page to quaternion transformations [...] and so to conclude my applications.””

Graves then comments: “I have called this an important paragraph because, in connexion with what appears in [Hamilton’s] latest manuscript books, and in the final pages of the *Elements* as published, it proves that the last article in the book – that on the Polar Plane – was completed long before the article upon Fresnel’s Wave, which precedes it, and upon which he continued to be engaged in the month preceding his death; and because we learn from the [clause by Hamilton] what was the one remaining, but unpublished, physical application of quaternions, with which he would have completed this series of illustrations of his calculus, before winding up, by general concluding remarks, his laborious and gigantic treatise.”<sup>87</sup>

Hamilton continued the letter to Salmon by mentioning very politely that his “analysis does not confirm [Cayley’s] enunciation of the “Principle of Equivalent Moments” [in Cayley’s paper ‘On Professor MacCullagh’s Theorem of the Polar Plane’].<sup>88</sup> [...] I found that the reflected vibration should be considered as at the end of the reflected ray in the *air*; Mr. C. places it at the end of a prolongation of that ray in the *crystal*. This does not at all touch the mathematical merit of the Paper; but it would make the greatest difference physically, in any consequences to be drawn respecting planes of polarization, &c. In short, I express the principle by an equation of three terms, and differ from Cayley by the sign of one of them.”

<sup>86</sup> [Graves, 1889, pp. 331-332]. The sonnet on MacCullagh is given on [Graves, 1885, p. 596].

<sup>87</sup> [Graves, 1889, pp. 193-195]

<sup>88</sup> Cayley, A. (1858), On Professor MacCullagh’s Theorem of the Polar Plane. *Proceedings of the Royal Irish Academy*. Vol. VI: 481-491. Read by Rev George Salmon on Monday, February 23rd, 1857. <https://archive.org/details/proceedingsfroy06dubl>.

Salmon reacted: "I have forgotten all about the polar plane. I was writing to Cayley, and sent him on your criticism. I happened to mention to a friend yesterday, as an illustration of the amount of my faith in you, "Sir William Hamilton writes me word that there is an error in a result of Cayley's, and though he expresses himself with all possible modesty as to the possibility of there being an error or misconception on his side, still, without knowing anything more, I believe firmly that there is an error as he alleges. And if Sir William were to tell me that a demonstration of my own was erroneous, I fear I should have no firm faith in any demonstration of mine till his objection was withdrawn.""

On the 4<sup>th</sup> of March Hamilton wrote to Salmon again, "I assure you that it is with great regret I find myself differing in any point from Mr. Cayley. [...] Nevertheless, having gone over my calculations again, and with great care, during the last few days, I cannot now feel any doubt of the existence of an oversight in the Paper which I mentioned last month. It was read by you (I remember that I could not attend that evening) on the 23rd of February, 1857, for Mr. Cayley, and is printed in vol. VI. part iv. of the *Proceedings* of the Royal Irish Academy. I believe that I told you that I found the spherical trigonometry to be all right, when reading the Paper for the first time in January last, but that I objected to the sign of the moment of the reflected vibration, as given in page 491 of the Part above cited. Recent calculations confirm this result; but they go much further, for they show that when the reflected vibration is placed at the end of the reflected ray in air, the "Principle of Equivalent Moments" holds good for every axis which is parallel to the face of the crystal."

Hamilton then wrote, on the 6<sup>th</sup> of March, to Jellett and asked: "Was the principle or property, called by Mr. Cayley the *Principle of Equivalent Moments*, a deduction of Mr. Cayley's own from MacCullagh's principles, by him referred to? [...] Or had the "principle of equivalent moments", as enunciated by Mr. Cayley, been actually deduced by *MacCullagh himself* (Mr. Cayley's modest tone suggests the latter alternative, but I do not know where to find any statement by MacCullagh on the subject)? [...] For agreement with my "Theorem (or Principle?) of the Resultant Couple" – rather recently arrived at – the enunciation requires to be corrected by what amounts to a change of sign of the reflected vibration; or better, by considering the reflected ray in air, and not its prolongation in the crystal. But even after this correction – which falls chiefly on the sign of the moment, given at top of page 491 – the principle treated of by Mr. Cayley is only a very particular case of my new theorem, above referred to, of which I shall be happy to send you the statement, translated from the new quaternion formula."

Jellett answered: "The principle of the equivalence of moments is expressly stated by MacCullagh as a part of the general theorem by which he solved the problem of crystallized reflexion and refraction. You will find it in the twenty-first vol. of the *Transactions*, pp. 41-2.<sup>89</sup> I confess that my interest in his whole theory has been much lessened by the discoveries of [the physicist Jules] Jamin [(1818-1886)], which show that the theory can at best be accepted as only approximate, and in certain cases not even that."

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<sup>89</sup> MacCullagh, J. (1848), An Essay towards a dynamical Theory of crystalline Reflexion and Refraction. *Transactions of the Royal Irish Academy*. Volume XXI: 17-50. Read December 9, 1839. <https://archive.org/details/transactionsfro21iris>.



Through Jellett and Salmon Hamilton then sent his treatment to Cayley, and added in a note to Salmon: "I hope that I shall be considered as not deficient in courtesy to Mr. Cayley, to whom, if you choose, you can forward this sheet. A letter received this morning from Jellett has given me a most useful reference to a later Paper by MacCullagh, in which I find myself supported, but of course anticipated, in what I had thought my own "Theorem of the Resultant Couple". So if I differ from Mr. Cayley I have MacCullagh on my side. My investigation was naturally quaternionic throughout; and I have not cancelled any part of it, but merely made an Addition."

On the 3<sup>rd</sup> of April Cayley wrote: "I return with thanks the enclosed Paper, forwarded to me by Dr. Salmon. I can have no possible objection to the publication of it. I do not understand you to say that there is any error of sign in my theorem, but it is very probable that the true interpretation of this in reference to MacCullagh's theory should have [...] [had a] – instead of + in the first term, and that in consequence I have wrongly enunciated the Principle of Equivalent Moments. I am not able to put myself back into the question to see that this is so, nor do I remember where my enunciation of the principle was taken from: I did not attend to the theorem otherwise than in a geometrical point of view, and was satisfied by obtaining the theorem as a theorem in pure geometry, the interpretation of which should be the principle in question. I am therefore quite willing to admit that your correction is right."

Although Cayley thus did not see his reversed sign as an error since he regarded his theorem purely theoretically, for Hamilton the reversed sign indicated "the greatest difference physically." Apparently, for him the "true interpretation" of the theorem was as important as the mathematical correctness.

Graves, who sounds unhappy with the missing sentence in the final printing of the *Elements* about MacCullagh, or he may have felt that Hamilton would have been unhappy with its missing, concludes: "[Hamilton's transcript as sent to Cayley] contains the whole of the concluding pages, from p. 760 (12) of the *Elements of Quaternions*, with the exception of the short sentence with which the last note concludes. This addition was founded upon the information which Professor Jellett's letter imparted. It is to be regretted that in preparing the manuscript for the press the latest form of this sentence was overlooked, as well as important following clauses, the main object of which was to obviate a possible inference from it to the disadvantage of MacCullagh. The passage, as finally settled, runs thus: –<sup>90</sup> "The writer understands that subsequent experiments by Jamin and others are considered to diminish the physical value of the theory above discussed. But this neither detracts on the one side from the great intellectual and physical genius of MacCullagh, nor renders inappropriate on the other side, for the purposes of the present work, the recent pendant to the quaternion expression of Fresnel's earlier views.""

Indeed, the last sentence of the *Elements* now reads: "The writer believes that the subsequent experiments, by Jamin and others, are considered to diminish much the physical value of the theory above discussed." It is easy to feel with Graves that it is unfortunate that, next to defending his own work, the short homage Hamilton had wanted to give to MacCullagh has not been immortalized. And at the same time it again shows how very thorough Graves was when writing his biography.<sup>91</sup>

<sup>90</sup> Graves adds in a footnote: "See [Hamilton's] Manuscript Book D. 1864, p. 117."

<sup>91</sup> [Graves, 1889, pp. 195-200]. The last chapter of the *Elements* is called: 'On a few Specimens of Physical Applications of Quaternions, with some Concluding Remarks'. Hamilton obviously but



## 7.5 The last months

Despite the work on the *Elements* and the foregoing correspondence, Hamilton did not refrain from working on still different mathematical subjects. Or, as he had written to Ingleby in 1861: “change of labour is, to a studious man, a relaxation.” Graves writes: “It is right I should here note that in the autumn of 1864 Hamilton commenced a series of memoirs characterized by the use of determinants, which was carried on far into this the last year of his life.”

And on the 24<sup>th</sup> of March 1865 Hamilton received a letter from Charles Graves, suggesting some mathematical theorems. Graves writes: “On the very day of the receipt of this inquiry Hamilton replied:— “Your stated theorem was quite new to me; I need not say that the suggested theorems were also unknown. But I have this morning had the pleasure of proving the theorem which you enunciated by assigning general expressions for the three to which it refers.” On the next day he sent his proof of his friend’s theorem, and on the 1<sup>st</sup> of April a generalisation, embracing all similar theorems. Dean Graves’s theorem and proof, and Hamilton’s generalisation, were subsequently communicated to the Royal Irish Academy, and may be found printed in its *Proceedings* for the meeting of June 26th, 1865. In the same number of the *Proceedings* is contained Hamilton’s last addition to his long list of contributions to the scientific memoirs published by the Academy, of which he had been a member almost from his boyhood.<sup>92</sup> [...] Soon, however, Hamilton’s wonderful activity of intellect, up to this time manifested uninterruptedly both in the carrying forward towards completion of the *Elements of Quaternions*, and in digressive exertations suggested by sympathy in the work of friends, was brought to a pause by a severe attack of the illness from which no entire recovery was granted to him.

“On the 26th of April, 1865, we find him thus writing to a friend: – “ ... It is very kind of you to inquire about my health and spirits, and to tell me something of your own. Mine have not been good for (I may say) some years past; but I am working away as usual. So much work produces naturally fatigue: in fact, it has injured my constitution, at least for the present; and it is not particularly conducive to good spirits to find that I have been running up what is (for my purse) a rather heavy bill with my printer. But I have many blessings, and do not wish to be considered as a grumbler. ...”<sup>93</sup>

“On the 9th of May, Hamilton was in Dublin for the last time. On that day was opened the International Exhibition [which] excited great interest in Hamilton: so much so that he declared his intention of coming in frequently to study its contents. But this was not to be. An attack of acute gout in the lower limbs rendered it necessary for him to summon, on the 13th of May, the aid of Dr. Wyse, who continued to be in almost daily attendance for the remainder of the month, and who, as Hamilton’s daughter records, was greatly struck by his patience under unusually severe

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missed finishing the *Elements* by a hair’s breadth.

<sup>92</sup> Graves, C. (1865), On a Theorem relating to the Binomial Coefficients. *Proceedings of the Royal Irish Academy*, vol IX: 297-300. Hamilton, W.R., Note on the preceding Paper: Extract from a recent Manuscript Investigation, suggested by a Theorem of Dean Graves, which was contained in a Letter received by me a week ago. *Idem*: 300-302. Hamilton’s last paper is: Hamilton, W.R., On a New System of Two General Equations of Curvature. *Idem*: 302-305. <https://archive.org/details/proceedingsofroy9186roya>.

<sup>93</sup> [Graves, 1889, pp. 200-202], [Graves, 1882, p. 432]. Graves does not give the name of this friend.

suffering. It would seem that on the first three days of June he was apparently better, for the physician's visits were discontinued; but on the 4th, alarming symptoms were manifested, and Dr. Stokes had to be sent for. The measures adopted were not sufficient to ward off an aggravated seizure on the following day, which took the form of epileptic convulsions. These were most severe, threatening immediate and mortal collapse. They were, however, under the direction of Dr. Stokes, at length subdued, leaving his strength finally shattered, and his mental powers for a time disabled."<sup>94</sup>

William Edwin, who had returned home from travelling abroad, wrote on the 13<sup>th</sup> of June to John O'Regan, Helen Eliza's future husband: "We all have been in a state of nervous tension last week, hope and fear succeeding each other every hour – now we are a little easier and that last week seems like some horrid dream separating life into two halves." Graves continues: "Before the end of the month he was again at work at his book, and corrected for the press his Papers for the *Proceedings* of the Academy; but soon bronchitis supervened, and, with other ailments, led on to the inevitable close."<sup>95</sup>

### 7.5.1 Illness and recognition

But four days after the beginning of this period of sickness, on the 17<sup>th</sup> of May 1865, Hamilton had received a message from the newly established National Academy of Sciences in America written by the astronomer Benjamin Apthorp Gould (1824–1896): "My Dear Sir, [...] the agreeable duty devolves upon me of announcing to you that the National Academy of Sciences, established by the United States on the 3rd of March, 1863, elected you, on the 9th of January following, first on the list of its Foreign Associates, now fifteen in number.

"As no reply has been received to the notification directed by the Academy a year ago, it is feared that it may have failed to reach you; and I therefore have the honour of addressing to you this duplicate announcement. A diploma will be transmitted hereafter. [...] Allow me to add the expression of my personal gratification at the honour which the Academy has done itself in placing your name at the head of its foreign list, and of our hope for your cordial sympathy with our efforts to organize now, for the first time, a National Academy in the United States."

Three days later the letter was followed by a private letter: "In August or September next it will have been twenty years since – within ten days after first setting foot on European soil – I found my way to you, and was received with a cordial welcome and kind hospitality, which might well have gratified a man of established scientific fame, instead of a youngster under twenty, who had never seen much of the world on this side, or any of it on your side the Atlantic.

"I cannot tell how often my memory has reverted since then to your beautiful park and your pleasant house and cordial greeting, and hoped that it might yet be my

<sup>94</sup> George Wyse, whose birth and death years seem to be hard to find, was an M.D. in Dublin in 1869 when William Stokes was vice-president for Dublin of the British Medical Association. See p. 514 and p. 497 respectively, of *The British Medical Journal*, 2 (462). [www.ncbi.nlm.nih.gov/pmc/articles/PMC2261192/pdf/brmedj05534-0015.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2261192/pdf/brmedj05534-0015.pdf) [Accessed 01 Nov 2015].

<sup>95</sup> [Hankins, 1980, p. 376], [Graves, 1889, pp. 202–203]. William Edwin had returned at the end of 1864, see [Hankins, 1980, p. 375], and in March 1865 the railroad accident had happened in which Edward Senior had died; Hamilton had been "terribly shocked" and William Edwin had been summoned as a juror at the inquest, see p. 98.

good fortune to pay my respects to you once more. The lapse of time seems, however, to make it more difficult with each successive year to leave the various duties which seem to bind us closer and closer to our homes and domestic routine of duties, and it is doubtful whether I may ever have the hoped-for gratification.<sup>96</sup>

“But I cannot resist the impulse to send these few lines while waiting the accompanying official document, and to express my hope for the long continuance of your health and scientific activity. [...] In January, 1864, the Academy voted to elect ten Foreign Associates, and accordingly twenty names were agreed on; after which the discussion turned, not on the election or non-election of any one of them, but upon the order in which they should be inscribed upon the rolls. It was soon narrowed down into a discussion as to whether your name or that of Professor [Karl Ernst] von Baer [1792-1876], of St. Petersburg, should head our list; and the Academy finally decided the question by a vote of two-thirds against one.”

Graves comments: “[The letter of recognition] shed brightness over his decline, and made him feel that, whatever might be the issue of his illness, his early dream of world-wide recognition was realised. It is remarkable that the land which first from a distance hailed with generous encouragement the beginning of his brilliant career was now to confer upon him a final crown of honour. When he was only twenty-seven, he received a diploma constituting him a Fellow of the American Academy of Arts and Sciences; now, when concluding his sixtieth year, and battling with mortal disease, he receives from the same great country the highest scientific honour in their power to bestow. [...] I am sure that to the scientific chiefs of that noble nation it must be ever a deep gratification that the act of their Academy was in time to be welcomed by the dying mathematician, and they will learn with interest that the last letter written by him was in acknowledgment of it. It will be seen, indeed, that this letter, written only a week before his death, was a very inadequate acknowledgment of the distinction he had received; but it was all his failing powers were capable of, and it intimated his intention of more fully expressing his feelings.”

Hamilton read the letter as late as the 13<sup>th</sup> of June, the same day that William Edwin had written that the family had become “a little easier.” He then wrote to Hart: “It was not until to-day that I read an official letter from America, which reached me more than a week ago, and which I now enclose for your perusal, and, if you think that it could interest them, for that of the Board also. To have been elected last year out of the whole world by the new National Academy of America, and, as a private letter informs me, by a majority of two to one, the *first* of its Foreign Associates appears to me so surprising a thing, that I might be apt to treat it as incredible, if I had not been long acquainted with the writer of the communication. To the indulgence of my College patrons the result may appear less extravagant than to myself. [...] P.S. I am considered to be slowly recovering, and am able to work a little.”

On the 16<sup>th</sup> of June Salmon wrote: “I have heard with very great pleasure of the honour done you, and through you to our University, by the National Academy of America. I am the less surprised, however, as I had heard some years ago from Professor [Benjamin] Peirce [(1809-1880)] of the extent to which your *Lectures on*

<sup>96</sup> Benjamin Gould was “one of the incorporators of the National Academy of Sciences,” and came to Europe in 1845. Comstock, G.C. (1922), Biographical Memoir Benjamin Apthorp Gould 1824-1896. *National Academy of Sciences*. Volume XVII. Seventh Memoir. [www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/gould-benjamin.pdf](http://www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/gould-benjamin.pdf) [Accessed 30 March 2015].

*Quaternions* circulated and were appreciated in America. If this day week (Thursday) should be fine, I should like to go out to see you. As, however, I only intended a friendly visit of inquiry, do not have the least scruple in telling me if, when the time comes nearer, you do not feel yourself quite equal to receiving visitors. If you were living in town we should, no doubt, all be calling every day to ask how you were going on. But, as you are not so accessible, it is natural to prefer to make my inquiries by letter, unless there is a hope of seeing you. I remain very sincerely yours.”

Graves comments that Hamilton’s letter to Hart “shows that those feelings were more than feelings of mere gratitude: that he was deeply impressed by the honour. Dr. Salmon’s letter must have afforded him additional gratification, as expressing personal sympathy, participated by many scientific and private friends, and the distinguished writer’s sense of the honour reflected on the University of Dublin.”<sup>97</sup>

### The costs of printing

On the 30<sup>th</sup> of May, about two weeks after the arrival of the letter of recognition yet also two weeks before Hamilton read it, the printer had sent Hamilton an account; “£145 was the sum still chargeable against Hamilton.” Graves adds: “In reference to this subject I grieve to say that it remained a weight upon his spirits up to the day of his death.” According to Graves, one of Hamilton’s Manuscript Books “contains the copy of a letter from Hamilton to the Bursar of Trinity College, [...] dated August 22, 1865 – a date less than a fortnight distant from his death. One clause in this letter was: “You will see that I have already paid him [Graves adds: the University Printer] Fifty Pounds of my own money – a not very pleasant operation.”” From which it may cautiously be inferred that Hamilton was, next to, or even rather than, being anxious about the money problems, grieved by the lack of recognition, in the form of money, for his work by his own university. Which could explain why these financial troubles do not seem to have had any influence on his work; knowing that he would even further increase the bill, he did not stop sending in proof sheets.<sup>98</sup>

During the illness in June the handling of the household finances became a problem; Hankins writes that Hamilton “became increasingly reluctant to sign checks,

<sup>97</sup> [Graves, 1889, pp. 205–208]. Benjamin Peirce starts his 1870 book *Linear Associative Algebra* with a new definition of mathematics: “Mathematics is the science which draws necessary conclusions. This definition of mathematics is wider than that which is ordinarily given, and by which its range is limited to quantitative research. The ordinary definition, like those of other sciences, is objective; whereas this is subjective. Recent investigations, of which quaternions is the most noteworthy instance, make it manifest that the old definition is too restricted.” Peirce, B. (1870), *Linear Associative Algebra*. Read before the National Academy of Sciences. Washington City: in lithographic copies, issued by J.E. Hilgard. [www.math.harvard.edu/history/peirce.algebra](http://www.math.harvard.edu/history/peirce.algebra).

<sup>98</sup> [Graves, 1889, p. 202]. “After his death, the Board of Trinity College liberally paid the [costs], and had then to defray the expense of binding, advertising, &c. The whole expense of printing and publishing amounted to close upon £500; and as the impression consisted of only 500 copies, many of which were presented to men of science, and scientific bodies – although the book was soon out of print – no profit could have resulted from its publication at the price of £1. I understand that so high a sum as £5 has been given at a public sale for a single copy.” That is indeed a large amount of money to pay for a book; according to the website *MeasuringWorth* in 2014 the relative income value of a £5 commodity in 1865 is around £4400. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 09 July 2015]. The books are becoming even more expensive now: in June 2014 a copy of the *Lectures*, inscribed by Hamilton for “Colonel Sabine” on the “06<sup>th</sup> August 1853”, was sold for \$7,500. “A rare copy in its original binding of purple cloth with a spine lettered in gilt.” [www.abebooks.com/rare-books/most-expensive-sales/june-2014.shtml](http://www.abebooks.com/rare-books/most-expensive-sales/june-2014.shtml) [Accessed 30 May 2014].

and finally was unable to do so. The grocer refused to give any further credit. In fact, all the Hamilton's creditors began knocking on the door. There was not even money to pay the doctor. On one occasion Hamilton tried to write a check, but had a terrible attack while writing it, and money became a forbidden subject in a house that had to be kept absolutely quiet." They were saved by the Rathbornes; Graves writes: "During the continuance of this alarming and disabling illness, Hamilton and his family received from their neighbours, Mr. [John] and Miss [Kate] Rathborne, practical and effective sympathy of the most valuable kind" which means that the Rathborne children of Dunsinea, who were "always attentive and attached neighbours to their aunt and her husband," gave them a loan.<sup>99</sup>

This all seems to indicate that the Hamiltons were in a hopeless situation yet these problems will only have had to do with the household cash flow; it is very unlikely that they had severe money problems. If it had been that bad Hamilton could have stopped sending his pages to the printer until he would have finished his book; he could have sold his polarizing apparatus or his stereoscope or the books in his library. Furthermore, Hamilton owned, according to William Edwin "some house property in Dublin, in Mountjoy Square and Castle street"<sup>100</sup> which could have been sold if it had been really necessary.

The worries of the family will have been concentrated on the problems of daily life in the form of not having money to go to the market or to buy the primary necessities of life since Hamilton did not want to write checks. From a story in a later chapter it can be seen that Hamilton was very strict about the handling of the household money; and unless that is an exaggeration as the story in its entirety seems to be, it is possible that he would not let his ideas about how to handle his finances, his property, and his work for that matter, be influenced by a temporary inability to write checks.

However difficult this must have been for the family, also the silence in the house will have had to do with the severity of Hamilton's condition; this happened in the first half of June when Hamilton was very ill, and William Edwin did write that in the second half of the month the family became "a little easier." And after the illness Hamilton was again able to handle his finances; Hankins writes: "At the end of July he finally sent in his statement of income tax [£607], apologizing for the delay in a handwriting that was constantly deteriorating." It can be assumed that daily life became normal again.<sup>101</sup>

Realizing that Hamilton sent his letter to the bursar of Trinity College about two months after having read the letter of recognition, the fact that he continued sending

<sup>99</sup> [Graves, 1889, p. 203], [Hankins, 1980, p. 377]. Helen Eliza wrote about the loan in a letter to her mother on the 18<sup>th</sup> of August 1865, see [Hankins, 1980, p. 453], while she was in Clogher with Archibald; they thus all knew about it.

<sup>100</sup> [Hamilton Jr, 1895, p. 7]. William Edwin mentions that Paul Askin (ca 1809-1897) was Hamilton's agent and indeed, the website of the *National Library of Ireland* shows that there are existent 'Letters from Nicaragua and Canada by W.E. Hamilton to Paul Askin, land agent, Dublin, 1863-1868'. <http://sources.nli.ie/Record/MS.UR.006462>. According to William Edwin Askin was active in the Temperance Movement, for this movement see chapter 10, making it an intriguing question whether Askin had any influence on Hamilton's reputation in Dublin, see p. 421. Askin also seems to have been a Justice of the Peace for Dublin, see Maguire, M. (1994), *The Organisation and Activism of Dublin's Protestant Working Class, 1883-1935*. *Irish Historical Studies*, 29 (113): 65-87.

<sup>101</sup> [Hankins, 1980, p. 377]. After Hamilton's death William Edwin told Graves a rather extreme story about Hamilton's strictness, see p. 351, but he most likely exaggerated.

sheets to the printer can again underpin the idea that he was more discomposd about having to pay this bill, which he may have seen as a lack of recognition of his work in his own country, than that he suffered from his financial troubles. But perhaps Graves did not know about Hamilton's property in Dublin; William Edwin will not have shown Graves his father's forbidden books and other 'secrets', and it is unknown how much he told Graves about the financial arrangements. Graves did persuade the Board of Trinity to pay Hamilton's bill but that is not an argument; he may have done that with an eye to the family, regardless of the worth of the legacy.<sup>102</sup>

## 7.6 Till death us do part

On the 16<sup>th</sup> of July Graves visited Hamilton at the Observatory, and was "greatly shocked by the change which had taken place [...]. Emaciated and feeble, he seemed altogether in physical respects a different man. His intellect, I soon found, was as clear and active, and powerful as ever, and I was deeply impressed by the gracious sweetness, gentleness, and humility, which shone through his manner and every word he uttered." Hamilton told Graves of his expectation "that the great task he had on hand would very soon be accomplished by his sending to the press the last sheets of his *Elements of Quaternions*. And looking beyond this event, he intimated his intention of turning afterwards, for refreshment and variety, to the study of poetry and to the putting down of his thoughts on metaphysics. I spent with him nearly four hours in conversation, embracing the higher topics of the day, religion included, part of the time in his beloved garden, part in the house, from which with kind consideration he insisted on sending me homeward in his car; and I felt, as I drove away that summer evening from the Observatory, that never in the long period of our friendship had my feeling towards him been one of deeper admiration and affection."

At the end of July Helen Eliza, who had been ill, went to Archibald in Clogher in order to regain her strength. Also Lady Hamilton was ill, and Jane Willey had come to the Observatory to help William Edwin who, according to Hankins, "managed matters well under difficult circumstances." Graves continues: "On the 5th of August Hamilton commenced what was intended to be a short series of letters on Quaternions, addressed to his younger son, by writing with a tremulous hand the letter describing the circumstances of his great discovery [...]. An introductory sentence to a second letter of the series is all that he was able afterwards to accomplish [...]. The 26th of August [...], I believe, is his latest registering of scientific work."

And on the 24<sup>th</sup> of August Hamilton wrote his very last letter, the answer to Gould: "I have been prevented by illness from writing sooner to acknowledge the high compliment paid to me lately in America, and announced in your letter. I am anxious not to let another post pass without doing so, and shall write afterwards more fully." A subsequent letter was never written. Yet Hamilton still worked on the *Elements*; in 1866 Tait writes "[He retained] his wonderful faculties unimpaired to the very last, and steadily [continued] till within a day or two of his death the task which had occupied the last six years of his life."<sup>103</sup>

<sup>102</sup> See p. 322, p. 316, footnote 59 on p. 428.

<sup>103</sup> [Graves, 1889, pp. 208-209], [Hankins, 1980, p. 377], [Tait, 1866, p. 23]. In 1851 Hamilton's cousin Joseph Hutton Willey, son of John Willey and Susan Hutton, see footnote 43 on p. 19, married Jane Millar, "a Belfast lady, who was educated at Gracehill," and she will have been the above



## Death

On the 2<sup>nd</sup> of September Hamilton died at home, at the age of sixty. In his last hours Hamilton talked with Graves who was summoned by William Edwin; arriving at the Observatory Graves had found Lady Hamilton in tears. Graves “found his friend in bed, his breathing rendered difficult by bronchitis, but his mind calm and in its full strength. He at once disclosed his consciousness that he was approaching the termination of his life.” Hamilton and Graves talked about “general topics of a religious bearing,” such as the treatment of Abraham’s interrupted Sacrifice of Isaac, a treatment Hamilton did not agree with, “expressing his conviction that God, as supreme Lord of life, able to give, to take away, and to restore, might quite justifiably give the command impugned.” “Turning to his own relation to God, he asked me a question by which I was deeply moved, manifesting, as it seemed to me, his humble searching of heart, “Did I think that God could love him?” I replied as the Christian minister has the happiness of being able to reply to such inquiry from a God-loving, yet self-arraigning, self-condemning, spirit, and he was satisfied.<sup>104</sup> [...]

“He then asked me to pray with and for him [...]. I complied with his desire; after which he said that he wished to testify his faith and thankfulness as a Christian by partaking of the Lord’s Supper. He added words to this effect – that, personally, he would rather receive it at my hands, or those of his son [Archibald], than from anyone else in the world, but that he thought the rubrical direction of our Church should be observed (thus manifesting at the last his deeply-seated respect for order and law), and that he would therefore ask me to request his Parish Clergyman, Dr. [Ralph] Sadleir [(1815-1902)], to come to the Observatory on the next day, if possible, for the purpose of administering the sacred rite, and that I would join him in partaking of it. I, of course, consented, and withdrew, as the arrival of Dr. Stokes and Dr. Wyse was announced. He then roused himself and used for the last time his pen – so long his almost inseparable instrument of thought – in feebly writing a few words to prepare his physicians for finding him with little voice left after his long converse with me. Upon their coming down from his room I gathered from them that he was indeed come to the final stage of his illness, but that it could not be pronounced how long his powers would hold out. Dr. Stokes, who was at the time my medical adviser, would not suffer me to remain, as I wished to do, but insisted on taking me back with him to Dublin. I therefore went again to my friend’s bedside, and was struck by the signs of a great collapse of vital energy, but had the satisfaction of a momentary interchange of farewells. Very shortly after our departure, at 2h. 30m. p.m., he breathed his last, having first, as I learned the following day, solemnly stretched himself at his full length upon his bed, and symmetrically disposed his arms and hands, thus calmly to await his death.”<sup>105</sup>

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mentioned Jane. See p. 255 of Rayner, S. (1887), *The History & Antiquities of Pudsey*. London: Longmans, Green, And Co. <https://archive.org/details/historyantiquiti00rayn>.

<sup>104</sup> It is not entirely clear why Graves used the words ‘self-arraignment’ and ‘self-condemnation’; these words do not entirely seem to fit Hamilton’s generally positive view on himself. It is also hardly conceivable that Graves then already knew about letters Hamilton did not show to his wife, see for instance p. 293, although he knew of course when he wrote the biography. But he was doing his utmost best to describe Hamilton as warmly as he could, see p. 479, and it is possible that he here again acknowledged Hamilton as a man who was always searching for ways to remain humble, both personally and religiously.

<sup>105</sup> [Graves, 1889, pp. 210-211]. Hamilton was apparently not afraid of death, and scientifically



Helen Eliza, who had been in Clogher, arrived later with Archibald. "She wrote her reactions down, in a shaky hand, reflecting her emotion and her recent illness. "I felt it wrong to go into the room till I was nicely dressed and my hair settled, because of a presence." They had to come by foot and train, and "at or very near 2 o'clock I said and could not help saying it "Of all the easy and short journeys we will ever take, the journey from this world to the next will be the shortest: see the trouble it is to get to Dublin, but it will be no trouble to leave this world. We make too much of death." Still I was gathering flowers for him but said to myself, perhaps he will not be able to look at them. ... The feelings most vivid were the Presence of God, the fact that my Father was not there and the prevailing sense of rest. I never felt afraid, only awed. ... I realized death when I touched his forehead with my lips and felt that chill which is unlike all else. ... This visitation has utterly abolished the fear of death, I wondered what it was that I had been afraid of all my life. I said to Jane while I looked upon him, "Who would ever think of praying for the soul of that man. We are I think not to insult God by asking for what He has so obviously granted." <sup>106</sup>

### The funeral and a poem for a friend

"The funeral took place on the 7th of September. His remains were brought from the Observatory to the Chapel of Trinity College, where the first part of the Burial Service was read by his friend, Doctor Todd, Senior Fellow; thence a procession followed the hearse to the cemetery at Mount Jerome. The time of year accounted for the absence from Dublin of very many who would have joined it. <sup>107</sup> I may name two who were, with great regret, at a disabling distance – his early friend and pupil, the Earl of Dunraven, and Dean Graves. Still great numbers formed a procession, which included, besides his family and connexions, a large body of College students, headed by the University authorities; many citizens of Dublin, preceded by the chief officers of the Corporation of his native city; and members of the Royal Irish Academy, attended by their secretary, Mr. Clibborn [(ca 1810- ca 1880)], bearing the Academic mace veiled in mourning reminiscence of their great President. I might here give a list, not uninteresting, of eminent men who paid this tribute of their respect, but must content myself with mentioning that among them were Hamilton's old friends, Dr. Hart, Dr. Salmon, Dr. Stokes, Dr. [George] Petrie [(1790-1866)], Sir Thomas Larcom, Denis Florence MacCarthy, and Professor Adams of Cambridge. The conclusion of the Burial Service was read by Dr. Sadleir, Incumbent of Castleknock. The grave appropriated to Hamilton, on the north side of the cemetery, is marked by a headstone, subsequently erected by his family." <sup>108</sup>

approached the dogma of the resurrection of the body; he "believed it to be a necessary but sufficient condition that the risen body should contain identically some material particle or particles of the old body, however entering into new chemical or organic combinations." [Graves, 1889, p. 243]. De Morgan even went a step further and wanted to donate his body to science; "Let the machine in which I have done duty be carried to those whose business it is to mend it while in action, that they may, by examination of it, become better qualified to mend other machines." [Graves, 1889, p. 413].

<sup>106</sup> [Hankins, 1980, p. 378]

<sup>107</sup> The meeting of the British Association that year was held in Birmingham, from the 6<sup>th</sup> to the 13<sup>th</sup> of September.

<sup>108</sup> [Graves, 1889, p. 212]. John Adams was, as Graves mentions, "the co-discoverer with LeVerrier of the planet Neptune. Hamilton had felt a warm sympathy both with the scientific grasp and labour which had achieved so great a result, and with the modesty which restrained his friend from any

Graves ends the chapter describing posthumous tributes and éloges with a poem by De Vere, written in January 1880, and comments: “The sonnet which I reserved is the following retrospect of their friendship; it sets before us, in succession, the two congenial companions united in the noblest aspirations; the survivor, filled with “beaming memories”; the departed, at the last in full secure possession of the truth he loved. Who can repress the hope that they will be re-united?”

Friend of past years, the holy and the blest,  
 When all my day shone out, a long sunrise;  
 When aspirations seemed but sympathies,  
 In such familiar nearness were they dressed;  
 When song, with swan-like plumes and starry crest,  
 O'er-circled earth, and beat against the skies,  
 And fearless Science raised her reverent eyes  
 From heaven to heaven, that each its God confessed  
 With homage ever widening! Friend beloved!  
 From me those days are passed; yet still, oh, still,  
 This night my heart with influx strange they fill  
 Of beaming memories from my vanished youth:  
 On thee the temporal veil by Death removed  
 Rests the great Vision of Eternal Truth!

## 7.7 Conclusion

Hamilton was a very religious man, and how he accepted the strict consequences of his religion can be read throughout the biographies; in one of the letters to De Vere of 1855 he even explicitly stated that “religious feelings, impressions, and convictions [are] the most important subjects in the world.” His intense religious beliefs helped him throughout his life to do what he believed he had to do, both in his personal life and in his work. His “deep reverence for marriage” gave him guidance in his troubles regarding Catherine, and the combination of his good marriage and his mathematical successes formed the confirmations of his choices.<sup>109</sup>

Of course, not everything in his life went the way he had hoped, but that is for most of us the way our life is lived; what makes us satisfied is the idea that we did what we could or believed we had to do, whatever our goal. Therefore, having been a good husband and father, whether perfect or not; having been knighted for his work before the quaternions, but also honoured for the quaternions themselves, for the last time by the Academy of Science in America; having almost finished his ‘monument for humanity’ and thus knowing that he succeeded in winning himself an “imperishable name”; and, perhaps most importantly, feeling certain of God’s grace, he must have died a happy man.

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clamorous assertion of his rights as a discoverer.” In 1863 Adams married Miss [Eliza] Bruce [(1827-1919)], “a cousin of Hamilton’s on his mother’s side.” [Graves, 1885, pp. 551-552]. Eliza Adams Bruce was Hamilton’s second cousin: Hamilton’s mother’s father was Robert Hutton (1756- ..) who was a brother of Susannah Hutton (1763-1819), who married William Bruce (1753-1841) in 1788. Their son Halliday Bruce (1789-1856) was Eliza’s father.

<sup>109</sup> [Graves, 1885, p. 19]. For the “most important subjects” see p. 308, for Catherine see chapter 8.

### Lady Hamilton's last years

Lady Hamilton, who was “rapidly losing her eyesight,” died four years later, and it can, perhaps, be called fortunate that her death in 1869 prevented her to witness her daughter's death in 1870. According to Hankins Lady Hamilton died “in complete seclusion,” as is apparently mentioned in a letter written, two weeks after her death in June 1869, by William Edwin to Helen Eliza. But he must have been in Canada while writing it; Hankins mentions that after “settling the estate” he left for Canada and only came back once, in 1871; it is therefore unclear what he meant by this.<sup>110</sup>

Yet, her seclusion will again not have meant being completely alone; according to Hankins Lady Hamilton indeed chose not to come with Helen Eliza and Archibald to Clogher where Archibald then held the senior curacy;<sup>111</sup> yet it is quite imaginable that, having to leave the Observatory and at the same time losing her eyesight, she wanted to stay in familiar surroundings; that she did not want to leave Dublin where she had lived the larger part of her life and probably still knew many people.<sup>112</sup>

It is not known whether Lady Hamilton's children often visited her; yet there exists a letter from Helen Eliza to John Herschel, written in March 1866 while being at Blessington-street 15 in Dublin, which could mean that Lady Hamilton again lived there, and that Helen Eliza visited her mother, or even lived with her.<sup>113</sup> It may have been a reply to a letter of condolence written by Herschel to Lady Hamilton in September 1865; she will hardly have been able to write a reply herself since her failing eyesight will have rendered writing difficult. But she will have talked to people; Ingleby wrote, four years after Hamilton's death and remarking that his wife “survives him,” that “there is a daguerreotype of Sir William, and his lady and family, in the possession of his widow,” something he obviously would not have known if she never talked to anyone. And there is hardly a reason why, for instance, her niece and nephew, Kate and John Rathborne of Dunsinea, would not visit her, they had known her all their lives and had been called, by Graves, “attentive and attached neighbours to their aunt and her husband.”<sup>114</sup>

<sup>110</sup> [Hankins, 1980, p. 379], [Hankins, 1980, p. 453 note 107]

<sup>111</sup> [Hankins, 1980, p. 379], [Hankins, 1980, p. 453 note 106], [Hankins, 1980, p. 375]

<sup>112</sup> William Edwin mentioned that a “Mrs. Comerford” “was much at the Observatory, and often used to go into town for marketing,” see p. 351. It is not clear from Graves' biography who she was exactly, but writing about Hamilton's marriage proposal late in 1832 Graves mentioned that Lady Hamilton had a friend in Dublin with whom she stayed while being ill; there thus is a possibility that this was the Mrs. Mary Comerford who lived, in 1862, at 8 Blessington-street, see the webpage *Thom's Almanac and Official Directory for the Year 1862*. [www.libraryireland.com/Dublin-Street-Directory-1862/128.php](http://www.libraryireland.com/Dublin-Street-Directory-1862/128.php) [Accessed 28 Jul 2015]. Also the famous miniature portrait painter John Comerford (ca 1770-1832) lived, during the last years of his life, in Blessington-street; he lived at number 28. He was survived by his only daughter Mary Comerford, whom he left a “bequest of £500 a year.” See the webpage *The Comerford Family History Blog Comerford Profiles 13: John Comerford (1770-1832), artist*. <http://comerfordfamily.blogspot.nl/2009/07/comerford-profiles-13-john-comerford.html>. This could explain, if this indeed was the Mrs. Comerford mentioned by William Edwin, why she helped at the Observatory although, calling Hamilton “uncle”, she clearly was not one of the personnel. If Mrs. Mary Comerford also was Lady Hamilton's unnamed Dublin friend she may have helped finding lodgings for her in 1840, and again in 1865, after Hamilton's death. But it is uncertain of course; William Edwin wrote “Mrs. Comerford” indicating a marriage; on the other hand, also the almanac wrote “Mrs. Mary Comerford”.

<sup>113</sup> *The National Archives* – Catalogue of the papers of Sir John Frederick William Herschel – Held by *Royal Society* – JH/A/447/2 – From Helen E.A. Hamilton. <http://discovery.nationalarchives.gov.uk/details/rd/0df370f6-9342-4c7c-ba2b-a7702c1ce117> [Accessed 20 Sep 2015].

<sup>114</sup> [Graves, 1889, p. 214], [Ingleby, 1869, pp. 165, 176], p. 259

She was granted, to share with Helen Eliza, a £200 pension which Hamilton had received in 1843, and different from him she did not have to pay assistants or entertain guests; she thus will even have been able to keep at least one servant. Moreover, as mentioned Hamilton left what William Edwin called a “comfortable legacy”.<sup>115</sup>

In the end, it will never be absolutely certain whether Lady Hamilton remained to be happy with her decision to accept Hamilton in marriage. Yet, there is not any indication that she had regrets, and Graves mentioned that the Hamilton couple remained attached to each other until the end of their lives. But their life being described almost completely on the basis of Hamilton’s correspondences it is not known what they did when he did not write about it, what they talked about when walking together in their beloved garden, what she did when he was working, whom she visited and who visited them, if she read books or perhaps did actually very interesting things with her children.<sup>116</sup> It must often have been difficult although she was not afraid to speak her mind; she worried about Hamilton’s indifference to financial matters, she won the golden opinions of his friends, she sometimes came to his ‘try-outs’ before a lecture, they went to church, visited friends,<sup>117</sup> attended weddings,<sup>118</sup> and she did climb onto the roof of the house to spend some hours there, enjoying the view.

She was proud of her husband and was concerned about him,<sup>119</sup> was amused by jokes,<sup>120</sup> inquired after friends, and asked Hamilton to invite friends.<sup>121</sup> She clearly did not always withdraw from “eminent people” or fellow scientists who visited the Observatory,<sup>122</sup> and she accompanied her husband to see the Queen, knowing beforehand how he would be at the center of attention talking to everybody. Vice versa, he was not ashamed of her in any way, trying hard to persuade her to come with him. Still, however affectionate Hamilton was and remained to be, in the end it must, as an enormous understatement, not have been easy to have a husband like Hamilton.

<sup>115</sup> [Graves, 1889, p. 213], p. 402, p. 20. For those years £100 perhaps not being a very large income, it also was certainly not a low income; it was what Thompson earned. According to the website *MeasuringWorth* in 2014 the relative economic status value of a £100 0s 0d income or wealth in 1865 is £87,960, the relative economic power value of that income or wealth is £188,600. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 08 July 2015].

<sup>116</sup> Which is entirely possible, see Hamilton’s remark on p. 184.

<sup>117</sup> See p. 171, p. 341. In 1852 Hamilton wrote to De Morgan: “Lady Hamilton and I have [...] visited Lady Campbell, and some of her charming children, who live now more than ten miles away from us,” see p. 425. Lady Campbell had become a widow in 1849.

<sup>118</sup> In 1853 Hamilton wrote to De Morgan: “I took very little part in this last meeting of the British Association, having in fact arrived too late to take much, for the wedding of a near connexion of my wife’s to a rich and young English lady took place in Dublin about the end of the week in which the Meeting opened at Hull, and prevented me from going early.” [Graves, 1885, pp. 689-690].

<sup>119</sup> See p. 170. A visit to the north of Ireland in 1852 had done Hamilton’s health and spirits so much good that she had said that he “ought to go very often to Carlingford.” [Graves, 1889, p. 415]

<sup>120</sup> [Graves, 1889, p. 435]. In December 1852 Hamilton wrote to De Morgan “Your note arrived this morning, and what I read of it to Lady Hamilton amused her much.” She was amused by De Morgan’s jokes more often; Hamilton also mentioned that earlier in 1852, [Graves, 1889, p. 412], and in 1861, [Graves, 1889, p. 564], and he wrote about it in a letter to Nichol Jr. in 1855: “She has been much amused with many of De Morgan’s letters, and I think would welcome him here,” see p. 293.

<sup>121</sup> In August 1840, after the birth of Helen Eliza, she had inquired after De Vere, see p. 205, and Hamilton wrote to De Morgan in 1852: “Lady H. and my daughter were saying, at breakfast this morning, that they should like to see De Morgan here.” [Graves, 1889, p. 399].

<sup>122</sup> In 1839 Hamilton invited Robinson, who had just lost his wife: “It may [...] tend to produce some intellectual relief, if for some days [...] you will visit Lady Hamilton and me at this Observatory,” and Lady Hamilton’s health was drank when they dined with Graves on the evening of their silver wedding-day in 1858, see p. 205 and p. 475.

## 7.8 Beauty in Victorian times

While introducing Hamilton's marriage to Helen Bayly, and immediately calling the marriage "this crisis of [Hamilton's] life", Graves remarks on the first page of the second volume of his biography that "she was of pleasing ladylike appearance, and early made a favourable impression upon [Hamilton] by her truthful nature and by the religious principles which he knew her to possess, although to these recommendations was not added any striking beauty of face or force of intellect." Combined with his many negative remarks, that she was 'extremely shy and retired' and 'weak of body and mind', he therewith leaves the impression that she also simply was not beautiful, and that that somehow mattered.

Although this essay is not a study into Victorian views or beliefs, prevailing opinions of course also influenced Hamilton, making it interesting to see whether something can be said about Lady Hamilton's beauty compared to others. A few times something is said in the biography about appearances, or about who was regarded as beautiful, which can be used to gain some idea about whether Lady Hamilton would, in her time, be regarded as "not beautiful."



*From left to right on the first row Lady Campbell (b. 1796), Mrs. Fletcher (b. 1770) and Dr. Lloyd (b. 1800) in their younger years. There does not seem to be a publicly available portrait of Lady Hamilton when she was younger. On the second row Lady Campbell, Mrs. Fletcher, Dr. Lloyd and Lady Hamilton (b. 1804) around the 1850s or 1860s; Mrs. Fletcher was in her eighties, the others in their fifties or sixties. Lady Hamilton's portrait is a photograph, the other portraits are drawings and paintings.*



What is clear beforehand is that Lady Hamilton was indeed not strikingly beautiful, as most people are not; Hamilton expressed his changed opinion when he fell in love, writing to De Vere in November 1832: "As to her beauty, I may unconsciously exaggerate that in my present state of feeling, and I must own that it did not strike me at first nor always, though lately it has much impressed me."

Also Hamilton himself was not regarded as beautiful; De Vere wrote: "The nobility of his forehead, which alone arrested one's attention, imparted a grandeur to a face otherwise not remarkable."<sup>123</sup>

Both Hamilton and Graves wrote about Catherine Disney that she was beautiful; Graves even writes that she was "by all accounts, of singular beauty." But there does not seem to be a publicly available portrait photograph of Catherine.<sup>124</sup>

Hamilton mentioned in the "playful letter" of 1854 that Mrs. Fletcher's eyes were "*almost* the finest eyes in the world" thereby most likely alluding to Lady Campbell's eyes since it was in a letter to her that he wrote this. Graves is almost lyrical about Lady Campbell's eyes: "hazel eyes, with long black lashes under broad dark eyebrows, gave forth flashes of intelligence, or seemed to be quiet wells of thought and affection." It can be seen in the drawing when she was younger that she had remarkable eyes indeed although in the later drawing it is not so explicit anymore.<sup>125</sup>

Although Graves seems to directly link beauty to being intelligent and friendly, which would be unimaginable for their social circles in such a strict period, that does not mean however that beauty was only expressed in high levels of cultivation; in the aforementioned letter Hamilton also wrote that Mrs. Fletcher had asked whether the children of Lady and Sir Campbell had inherited their parent's beauty, and he then told Mrs. Fletcher that the married daughters had been "quite the rage for their beauty, &c., at the Irish Court, and elsewhere." Only three daughters of Lady Campbell were married then, Pamela, Georgina and Lucy; yet there also do not seem to be publicly available pictures of them.<sup>126</sup>

About Mrs. Fletcher it has been said that she was "possessed of beauty and talents."<sup>127</sup> Hamilton was explicit about her eyes, writing to Lady Campbell that she had "*almost* the finest eyes in the world." And indeed, especially in the drawing of Mrs. Fletcher when she was eighty, thus only four years before Hamilton met her, her eyes do stand out.

<sup>123</sup> See p. 132, p. 45.

<sup>124</sup> See p. 53. A painting and some photographs exist of the Irish novelist Jane Barlow (1856-1917), daughter of Catherine's eldest son James Barlow, but it is of course not known how much Jane Barlow resembled Catherine. The painting has been made by Sarah Purser (1848-1943) in 1894 and is kept in the Dublin City Gallery The Hugh Lane, [http://emuseum.pointblank.ie/online\\_catalogue/works.php?id=596](http://emuseum.pointblank.ie/online_catalogue/works.php?id=596); for one of the photographs see p. 261 of *The Bookman*, Volume II. August-September, 1895 - February, 1896. <https://babel.hathitrust.org/cgi/pt?id=uva.x000280677;view=1up;seq=271>.

<sup>125</sup> See p. 220, [Graves, 1882, p. 359]. There also exists a painting of Lady Campbell as a little child with her mother, Lady Pamela FitzGerald, and this painting also shows the very large eyes she had as a child. The painting, *Lady Pamela Fitzgerald and her Daughter*, was made by Mallory around 1800, when she thus was about four years old. <http://onlinecollection.nationalgallery.ie/search/mallary>.

<sup>126</sup> See p. 220. There are several paintings of the second youngest daughter, Madeline Caroline Frances Eden Campbell (.. -1920), who married Percy Wyndham (1835-1911) in 1860; on the one made by George Frederick Watts in 1877 her face can be seen clearly. [www.pubhist.com/w20352](http://www.pubhist.com/w20352).

<sup>127</sup> Perkins, P. (2004), Fletcher [née Dawson], Elizabeth [Eliza] (1770-1858), poet and autobiographer. *Oxford Dictionary of National Biography*.

But the most striking description of what was regarded as beautiful was the 1834 story about Humphrey Lloyd; in the drawing on the top row he seems to be in his thirties, which means that the drawing will have been made around the time the story was told. Humphrey Lloyd's face had "haunted the Scotch as well as the Irish ladies;" his face had kept Mrs. Hope awake for a whole night because of its "sweetness and beauty", and she even had kept her husband awake because "she was so often exclaiming about it."

Still, one of the very long standing seven signs of beauty is having dark hair and blue eyes and indeed, from Lady Hamilton's photograph her dark hair and very light blue eyes are conspicuous; she thus certainly met the criteria for this general sign of beauty. But perhaps even more important was her hair itself. Hair was considered important for women in the Victorian era, and from Hamilton's poems it is clear that she indeed had thick, dark and probably long hair. Hamilton found her hair very impressive indeed; he wrote in November 1832: "Never before the dark luxuriance Of cloud-like tresses rich, o'er snowy brow Gently descending, stirred my heart as now The meek and spiritual majesty Of those dark locks: my fascinated eye Almost forgets the loveliness below."

And looking at these drawings, thereby allowing for the fact that the dark circles under her eyes will have been due to her frequent illnesses, as well as for the fact that there is no picture of her when she was younger, she does not seem in any way to be strikingly less good-looking than the others in their later years. It can, therefore, very easily be imagined that Hamilton indeed found his wife quite beautiful.

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Lady Campbell: The drawing made by her cousin Sir William Napier (1785-1860) when she was probably in her late teens or early twenties, thus some ten to fifteen years before Hamilton learned to know her in 1827, can be seen as a frontispiece to Dickinson, V. (1919), *Miss Eden's letters*. London: Macmillan and Co. <https://archive.org/details/missedensletters00eden>. The drawing of her in her later years as seen above comes from the page next to p. 244 of Campbell, G. (1904), *Edward and Pamela FitzGerald : Being Some Account of their Lives Compiled from the Letters of those who knew them*. London: Edward Arnold. <https://archive.org/stream/edwardpamelafitz00campuoft#page/244/mode/2up>.

Mrs. Fletcher: Both drawings, one when she was fifteen and another when she was eighty, can be found as a frontispiece and opposite to p. 281, respectively, of Richardson, M. (ed) (1875), *Autobiography of Mrs. Fletcher. With Letters and other Family Memorials*. Edinburgh: Edmonston and Douglas. <https://archive.org/details/autobiographyofm00fletiala>.

Humphrey Lloyd: The drawing made when he was younger comes from p. 472 of Gubbins, D., Herero-Bervera, E. (eds) (2007), *Encyclopedia of Geomagnetism and Paleomagnetism*. Dordrecht: Springer. <https://books.google.com/books?id=O-wA0ocxAiIC&q=472>. The painting made late in the 1860s comes from the webpage *Provost & President : Former Provosts*, Trinity College Dublin. [www.tcd.ie/provost/history/former-provosts/h\\_lloyd.php](http://www.tcd.ie/provost/history/former-provosts/h_lloyd.php) [Accessed 01 Sep 2015].

Lady Hamilton: Her photograph can be found in [Wayman, 1987, p. 65].



## Chapter 8

### A lost love

*In this chapter it will be shown that until 1830 Hamilton had assumed that Catherine was happily married, and that only in 1848 he received the confirmation that the sorrow he had seen in her eyes in 1830 had revealed that Catherine's marriage was an unhappy one. Also, a reasonable case will be made, as far as it is possible to derive that from the scarce information given in the biographies, for the proposition that only around the time of her death Catherine was finally able to tell Hamilton that she had also loved him, that she had not married of her own free will, and that she had wanted to keep his friendship.*

Hamilton apparently did not meet Catherine anymore after their encounter in 1830 until in the course of 1845 Thomas Disney visited the Observatory, bringing Catherine, Mrs. Barlow, with him. Hankins remarks that Hamilton “left little record of this visit,” and Graves does not mention this visit at all. Yet Graves seems to hint at it; while describing 1830 and Hamilton’s first meeting with Catherine, he mentions that they never met again “except twice, or at the most three times, transiently in society, until more than twenty years afterwards, when she lay upon her deathbed.”<sup>1</sup>

Three years later, on the 18<sup>th</sup> of July 1848, Catherine contacted Hamilton again by writing him a letter, and according to Hankins that year was “the most tumultuous of all.” Hamilton had coached Catherine’s son, James Barlow, in mathematics, and Hankins writes: “it was clear to Catherine that Hamilton had gone out of his way to be of service to her and her son. [...] According to Hamilton, it was a letter that she would have sent much earlier if she had been able to do so.”<sup>2</sup> After their meeting in 1830, Catherine had asked her husband if she might write Hamilton and explain that she had not been responsible for his rejection in 1825 and that she wished to keep his friendship. Her husband refused.”<sup>3</sup>

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<sup>1</sup> [Hankins, 1980, p. 348], p. 86. As seen from a note in Hankins’ biography Hamilton mentioned Catherine’s 1845 visit in letters to her brothers Robert (1803-1885) and Thomas, written shortly after her death in November 1853. [Hankins, 1980, p. 449 note 1].

<sup>2</sup> Hankins does not give a reference, but in the light of the following events it can be assumed that Hamilton wrote that in hindsight, in 1853 or 1855, to one of his correspondents then.

<sup>3</sup> [Graves, 1885, p. 609], [Hankins, 1980, p. 348]. Hankins adds that, considering the strength of feeling between Catherine and Hamilton, Barlow’s decision probably had been wise. Yet, it can be argued that it might instead have brought peace to their feelings.

## 8.1 A six-week correspondence

In the beginning of July 1848 Hamilton had started to work on his first book, the *Lectures on Quaternions*. But during the preparations, upon receiving Catherine's letter, his work was suddenly interrupted; Graves gives the page the telling page header 'Interruption' and indeed, it seems to have been the only time that Hamilton really interrupted his work.

The interruption was caused by a correspondence which followed the letter and lasted six weeks, but Graves does not want to publish it at large. Just calling Catherine "an old friend", the collection of the parts of the correspondence which Graves does give, called "Extracts from a Correspondence", consists only of small parts of Hamilton's letters; Catherine's letters are not given at all. The correspondence is most likely lost; according to Hankins Hamilton copied all their original letters out in shorthand into a notebook called "Neville and Sydney 1850" and then burnt the original letters. But also this notebook does not seem to exist anymore, its existence is only known through letters from Hamilton in which he referred to the correspondence using this codename; Hankins suspects that Graves destroyed it.<sup>4</sup>

Giving the "extracts" Graves comments: "This writer, after thanking him for kindness to a relative, took occasion to express interest in his inner life, and specially in his spiritual state, and the appeal coming thus from a friend of his youth led him to an extent which was agitating and unnerving at the time, though, as he judged, ultimately beneficial, to disturb anew rooted sorrows,<sup>5</sup> and to summon to a strict account his whole past of religious experience. I select from his part of the correspondence a few passages which throw valuable light upon the inner current of his being."

### "Extracts from a Correspondence"

"Since my marriage in 1833 I have not allowed myself to compose a single line of backward-looking poetry, such as I had perhaps too largely, written before. ..."

"I had not indeed admitted any speculative infidelity into my views; but alas what practical irreligion and real unbelief were shown in that complete and prostrate Despondence!<sup>6</sup> It was with reference to such moods chiefly that I said, with an emphasis which has alarmed you, that I had never been a theoretical unbeliever. I am now deeply convinced that, along with resignation and heavenly hope, it is a duty to cherish also, if possible, a spirit of hope, though not of anxiety, with respect to this earthly existence, ... for to a sinful and tremendous depth, at the thought of which I shudder now, I have sounded long ago the abysses of the opposite spirit: and, through God's grace, emerged."<sup>7</sup>

<sup>4</sup> [Graves, 1885, pp. 609-612], [Hankins, 1980, p. 350]

<sup>5</sup> In a letter to De Morgan of the 21<sup>st</sup> of August 1848 Hamilton wrote: "the quaternions have been almost entirely out of my head for the last month or six weeks, but I am going to attack them again [...]. The little interruption to my thoughts, which has arisen partly from some private causes (including the illness of a relation), and partly from some anxiety about the state of this country, may turn out to have been of service to me." [Graves, 1889, p. 274].

<sup>6</sup> Although Hamilton had not known much about Catherine's inner feelings, she had doubtlessly read his poems of which many were published; 'The Enthusiast' and 'A Farewell' were published in 1830, see footnote 28 on p. 62 and footnote 12 on p. 56; she thus knew all about his.

<sup>7</sup> According to Graves "there can be little doubt that when writing these words Hamilton had in recollection the state of his feelings after his first disappointment in love, and the temptation to

"My struggles and alternations in the spiritual life have not been (as that former expression of mine may for a moment have led you to fear) between belief and doubt; but between warmth and coldness. My intellect has never ceased to embrace Christianity with satisfactory and complete conviction: it is the evil heart of belief which has, too often, departed from the living God. ..."

"I am not ungrateful for the happiness which I have, in such large measure, enjoyed through life from society, nature, and study: not to speak here of any of those higher consolations which yet have not been always unvouchsafed to me. It is also a subject of deep thankfulness to me that the great sorrow of my youth was altogether free from that bitterness which attends the change from affection to unkindness: free also from the pain of any diminution of esteem. Of some great sorrow I am sure that the discipline was necessary to tame, in some degree, a spirit of self-reliance, which has not yet, perhaps, been sufficiently subdued, but against which I am learning, at least, to be more and more on my guard."<sup>8</sup>

"Let me, therefore, now mention, what I think an important secret of experience: namely, that, blessed a thing as meditation is, it is Action, rather than Meditation, which is the appointed remedy, the divine specific, against Despondence; and that present duties, which may at first seem irksome, are part of the medicine wherewith God healeth the sickness of those that are broken in heart."<sup>9</sup>

"You may possibly have heard that some people were pleased to call me a Puseyite, some years ago.<sup>10</sup> However, I never pleaded guilty to the charge, though I had certainly leanings to high-churchism. But I have never allowed my views and feelings of religion to harden into any system; nor have I ever joined any party in the Church. The creeds and collects seem to me to contain a sufficient summary of doctrine; though I felt no scruple whatever in subscribing the Articles also when I received a Doctor's Degree at Cambridge, in 1845."

"... Though I have not been consistently religious through life, I can truly say that, every now and then, I have long since had grace to pray that God would put upon me any amount of sorrow, or even of humiliation – and to pray this honestly was a great deal from me – which might be for my spiritual welfare, and might bring me nearer to Him."

"Do not imagine that I am now haunted by the fever of ambition. I can honestly pray to God, just to make what use of me He sees fit: and to give me just as much or as little celebrity as He judges good for myself and for other men."

"... Science, which – though not to the exclusion of poetry, literature, and several kindred studies, not all expressly religious – still seems to me to be my own Vocation, Call, or Duty."<sup>11</sup>

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suicide which in consequence he experienced and resisted." See also p. 56.

<sup>8</sup> In a footnote Graves combines this extract with an 1849 letter to an unnamed "intimate friend", to which he comments that the 1849 letter was "a fuller and more forcible expression of the feelings and judgments put on record in the above extract." Graves' combination, discussed on p. 64, indicates that the "great sorrow" of Hamilton's youth was losing Catherine.

<sup>9</sup> This throws again a light on his choice for such a pious wife as Helen Bayly; with her supposedly rather practical mind, see for instance p. 151 and p. 373, her piousness will likely have led her to be very strict in religious duties in the sense of, for instance, never skipping church on Sunday unless when ill. It is very well possible that for Hamilton this certainty was a healthy necessity, helping him not to drown completely in his thoughts; whether unhappy ones, or mathematical ones.

<sup>10</sup> See p. 405.

<sup>11</sup> [Graves, 1885, pp. 610-611]

These are all the extracts given by Graves. He ends this ‘summary’ remarking: “A letter of old date to Lady Campbell was quoted by Hamilton in this correspondence, and as it deals with [...] points of much interest, I here insert the extract made by him.” The letter was written in 1830, and in this essay it was given with the correspondence between Hamilton and Lady Campbell which had followed Hamilton’s visit to Catherine in Armagh, after which he had been “morbidly despondent”. Graves here gives the letter to further confirm Hamilton’s lifelong inclination to use his feelings of desperation and sadness to try to remain humble.<sup>12</sup>

There is something worth noticing here: although Hamilton will not have shown this correspondence to his wife, Graves does not in any way condemn Hamilton for that. Even though he may have destroyed the notebook, he obviously did not think that Hamilton went too far, or even cheated on his wife. He may have destroyed it because he feared that future readers would not think so warmly about Hamilton and admire him so much as he did, especially in the religious sense, but it did not have anything to do with Hamilton’s marriage; according to Graves Hamilton’s “insidious habit” was “the one shadow upon the brightness of Hamilton’s life and character,” not how he handled his problems regarding Catherine. Indeed, nothing Hamilton did during these difficult times made Graves change his mind about him as having “remained to the end of his life an attached husband.”<sup>13</sup>

The extracts of the correspondence also show that Hamilton still consciously used the methods he discovered in the summer of 1832 to prevent his former long periods of despondence and gloom; even sixteen years later he had no doubts about it. But what Hamilton did not know was that he was giving his good advice about “cherishing a spirit of hope with respect to this earthly existence” and “Action being the appointed remedy against Despondence,” which indeed might be helpful for someone who started out in a happy marriage but somehow lost the happiness, to someone trapped in a forced and unhappy marriage, and without the freedom to say so. It is easy to imagine, yet also painful, that his well-meant advice may have made things even harder for her.

### The end of the six-week correspondence

In 1855 Hamilton wrote to De Vere that after Catherine’s first letter “I replied very coldly and guardedly at first, and wrote my answer as if it has been an original letter, and not a reply, and with the intention that it should be shewn by her to her husband, for whom I charged her (icily enough, as I felt at the time, but still I did charge her) with my compliments, if she would take the trouble to deliver them. This she had not the resolution to do – nor have I, knowing more now than I did, the heart to blame her for it. Letter succeeded letter for awhile, of an increasing confidential ... character.”<sup>14</sup>

Hankins writes: “The exchange continued for six weeks, increasing in intimacy, and causing increased distress. Hamilton urged an end to the correspondence; Catherine began to feel that she had to confess it to her husband. Hamilton urged her not to, and the letters continued. It was obvious to both of them that their love had not

<sup>12</sup> See for this letter p. 89. Graves thus makes two combinations here: one with the 1849 letter to the unnamed “intimate friend” and one with the 1830 letter to Lady Campbell.

<sup>13</sup> See p. 479, p. 8.

<sup>14</sup> [Hankins, 1980, p. 348]. This letter belongs to the letters to De Vere of 1855, see p. 311.

diminished since 1825. [...] Their mutual love was a sentiment to be savored, but it did nothing to assuage their guilt, and Catherine finally decided that she had to tell her husband. She concluded her last letter: "To the mercy of God in Christ I look alone, for pardon for all my sins."

Catherine did confess and Barlow wrote a letter to Hamilton, who in the meantime had started to hate him and was at the same time distressed about that; hatred will not have been a very familiar feeling for Hamilton. According to Hankins, Hamilton wrote in later years that the letter was "a curious kind of half-anger," that terminated with a "half-apology." Hamilton replied politely that he was sure Barlow would never expect to hear from him under any circumstances again.<sup>15</sup>

### Interpretations

Although it is very easy to imagine that this whole situation caused Hamilton extreme anxiety, it must be stressed that every interpretation of the correspondence should be read with care.<sup>16</sup> The original letters being burned and the notebook called "Neville and Sydney 1850" apparently lost also Hankins did not read the letters, indeed, he remarks that the "brief extracts of a correspondence of July, 1848, between Hamilton and an "old friend" [...] could only be parts of his letters to Catherine. Of course they are edited to remove any personal references and they dwell largely on religious matters. If the rest of the correspondence was like these extracts, it was certainly harmless." To this conclusion can be raised objections; the letters may have contained confessions which in turn may have been a reason for Graves not to publish them and only give the religious parts. Hankins will be right though; the fact that Hamilton sent, in 1861, the complete correspondence to Catherine's sister Louisa can serve as a further proof of their innocence.<sup>17</sup>

And however heartbreaking Catherine's last remark is, she must have been extremely unhappy, the information coming from a letter Hamilton wrote to De Vere in 1855 which is summarized extremely briefly by Hankins, it is not known what Hamilton exactly wrote to De Vere about it, and which part of the foregoing is Hankins' interpretation, making it also unclear what according to Catherine exactly her sin was. But assuming that there were no in itself sinful thoughts or remarks in the letters, the nature of her sin could be sought for in the extremely constricted positions of women in their time. As mentioned earlier, women had to vow obedience to the men they married, and matrimony being holy, disobedience in itself was a sin, regardless of what the disobedience was about. Of course, the gravity of the disobedient deed would further influence the total measure of the sin, but in Catherine's case, her

<sup>15</sup> [Hankins, 1980, p. 349]

<sup>16</sup> That holds for Hamilton himself who had a tendency to romanticize events, adjusting stories dependent as it seems on whom he was writing to, or choosing the correspondent who would be best suited to understand his feelings of the moment, see for instance p. 135. It holds for Graves since he was trying to hide the importance of these events; as usual he chiefly uses the extracts to show how beautiful Hamilton was as a human being. And it holds for Hankins since he seems to have been so impressed by the "lost love" that he believes that Hamilton only loved Catherine; that he "tortured himself with this dream for forty years," and that "no person ever replaced Catherine in Hamilton's affections from the moment that he first saw her until his death, and it is difficult to imagine anyone being loved with more constancy over a longer period of time." [Hankins, 1980, p. 390], [Hankins, 1980, p. 358]. The improbability thereof was discussed extensively in previous chapters.

<sup>17</sup> [Hankins, 1980, p. 449], p. 321. This could mean that Louisa's descendants still have the correspondence.

letters assumed to have been innocent, the sin may have been the simple fact that she corresponded with Hamilton while Barlow had told her not to. Victorian times were indeed very difficult times for women.

Hankins continues the aforementioned sentence, “[the correspondence was] increasing in intimacy, and causing increased distress,” by writing: “Unhappy marriages on both sides had intensified it.” But that must also be an interpretation; Hankins does not give another letter, or an exact quote, to show that Hamilton wrote to Catherine that he had an unhappy marriage. On the contrary, in his biography Hankins even states that “[Helen] remained the central figure in Hamilton’s life.[ . . . ] Hamilton never wrote a word of complaint about his wife.”<sup>18</sup>

### An unhappy marriage

Hamilton had clearly expected Catherine to be happy in her marriage. In the poem ‘The Enthusiast’ he had written that “she thought of him but as a brother,” in the poem ‘A Farewell’ he had wished her “richest bliss, unmixed and long,”<sup>19</sup> and in a poem written in June 1826, after expressing his hope that she would not forget him, he had continued:

But may peace be around thee, wherever thou goest!  
 May happiness still o’er thy bright path hover!  
 Nor aught of gloom or of sorrow come  
 The sunshine of thy young days to cover!  
 May thy home be rich with the still-new joys  
 From wedded Love’s holy fountain welling,  
 And thy heart be a shrine for the bliss that springs  
 From a tranquil mind, in pure thoughts dwelling!

He had also expressed, in the negative, this expectation in his 1830 poem, composed after he had visited her in Armagh, when he wrote that “the change which my glad light put out, And threw a gloom over my once bright way, Has not to her brought perfect happiness.” Having seen her unhappiness, and having found that so difficult that he had to be consoled by Lady Campbell, the idea of a friendship between Lady Campbell and Catherine had lifted his spirits again, believing that that would make her happier. It can therefore be assumed that until the 1848 correspondence Hamilton had no idea how very unhappy Catherine was in her marriage.<sup>20</sup>

<sup>18</sup> [Hankins, 1980, p. 126]. Being completely dependent on their husbands, the lives of many poor women in those days must have been extremely hard, yet that cannot be discussed here. About the positions of women in the higher circles Mrs. Wilde made a very illustrative remark: “I have sometimes thought with admiration upon that excellent Chinese custom of drowning half the female children, or that still more excellent Hindu system of burning all the widows. At present myriads of eternal souls come on earth as ‘ladies’, and, in right of the title, live a life of vacuity, inanity, vanity, absurdity, and idleness. . . . This idle life of ladyhood is indeed the most deplorable thing in the universe.” [Hankins, 1980, p. 356], quoted from Vere White, T. de (1967), *The Parents of Oscar Wilde : Sir William and Lady Wilde*. London: Hodder & Stoughton.

<sup>19</sup> Even if her unhappiness had been visible during her wedding he had not seen it since he had not attended it, as can be read in the poem ‘A Farewell’. Which would explain why he, in September 1825, only some months after Catherine’s marriage, could feel her parent’s home, Summerhill, as a “heart-cherished home on some desolate plain,” see p. 58. He apparently trusted her parents, in any case, he then did not hold anything against them.

<sup>20</sup> [Graves, 1882, p. 215], p. 55. For the idea of a friendship see p. 88.

It is easy to imagine how hard it must have been for him to know that now, and it is also imaginable that Graves did not want to publish that; Barlow died in 1871<sup>21</sup> but most of Catherine's children were still alive when Graves wrote this second part of the biography. Therefore, instead of assuming that Hamilton had simply always mourned the loss of Catherine, thus had more or less lied when writing about his distress after the loss of Ellen de Vere, about how he changed his behaviour in the summer of 1832 and how well he felt thereafter, and that he thus also had lied when writing his love poems about Helen Bayly, it is far more likely that Hamilton reacted so intensely because, her happiness clearly being very important to him,<sup>22</sup> he now knew he had lost her to an unhappy marriage.

### 8.1.1 A prayer for calm

That year Hamilton did not attend the eighteenth meeting of the British Association, held at Swansea from the 8<sup>th</sup> to the 16<sup>th</sup> of August, and on the 25<sup>th</sup> of August 1848 he wrote a sonnet to calm himself; according to Graves it expresses "with much pathos devout Christian feeling."<sup>23</sup>

#### PRAYER FOR CALM.

When the disciples saw each surging hill  
Of waters threaten that frail bark, aboard  
Of which, rude-pillowed, lay their sleeping Lord,  
They roused him with affrighted prayers; and still  
He, only He, can calm the mind at will;  
His sovereign word alone with power reprove  
Ambition's tumult, the unrest of Love,  
And to the Heart's wild waves say, Peace, be still.

If to ourselves, then, Christ now sleeping seem,  
If in *our* hearts we feel those billows rave,  
Let us, too, start to prayer from panic's dream,  
And from a risen Saviour rescue crave:  
Thy voice, Lord! can still give calm supreme;  
Without Thee, we are lost: but Thou canst save!

Hamilton sent this poem to De Vere on the 26<sup>th</sup> of August from Portarlinton, having been invited to come to Parsonstown to visit Lord Rosse<sup>24</sup> and his new telescope at Birr Castle. In the accompanying letter he wrote: "I have lately made a discovery – not of [...] quaternions, or of any of those unchristian things – but of a peep at the Dublin or Wicklow mountains, appearing above sumach trees, and amid too luxuriant evergreens, just over the hillock of moss-roses, in the middle of that part of my

<sup>21</sup> See the website *Barlows in Ireland*. [www.barlowgenealogy.com/ireland/families/BarlowOfDublin.htm](http://www.barlowgenealogy.com/ireland/families/BarlowOfDublin.htm) [Accessed 10 Jan 2015].

<sup>22</sup> As was discussed earlier, see p. 117.

<sup>23</sup> [Graves, 1885, p. 613]

<sup>24</sup> William Parsons had become Baron Oxmantown in 1807, and after his father's death in 1841 he became Earl of Rosse.



garden which I regard as sacred, more than the rest, to the memory of my predecessor, Brinkley. I see it while I stand just under a myrtle tree, and near trees of the mystical passion-flower, and the ever-blooming *Pirus Japonica*: and it has, over and over, startled me of late from meditation on some sonnet or other of yours, so that I have quite come to associate it with you. I write these lines to tell you so, at a somewhat lonely inn, where I am cheered, however, by the attendance (for the evening) of an ancient happy-looking man, who has (as I guessed before I asked him) been waiter here for a long time – he says for sixteen years. That is a long time in a man's life – a short one in his affections. The verses copied on this sheet, and composed yesterday, relate mainly to an impression upon my affections, which was made twenty-four years ago. *That* was, really, love at first sight – mysterious – wonderful – all that has happened to me since is, in comparison, *unreality*. [...] Without any appreciable, or expressible change in my religious views, I feel that there has been for some time back a decided improvement in my religious habits, tastes, and feelings: the sum and substance of which seem to be, that I feel more than before my need of a Saviour, of *The Saviour*.”<sup>25</sup>

Graves continues: “It will have been gathered from what precedes that the probing of spirit in reference to his religious history was accompanied, and it was inevitable that it should be so, by a re-opening of the old wound of his affections. This caused him not only agitation of feeling, but some troubling of conscience, and his deep-seated confidence in the sympathetic nature and the spiritual wisdom of Aubrey De Vere, led him in a second letter to disclose fully to him the nature of his trial. That second letter it would not be proper to print at large. It speaks of the acute pain caused him by the vivid picturing in memory of the incidents of that by-gone time, and of the misgiving as to whether this could be right, although he was conscious of being in act and intention faithful to the principles of duty.”<sup>26</sup>

Hankins did read the letter, written on the 29<sup>th</sup> of August 1848, but he gives only one sentence: “The same remembrance has run like a river through my life, hidden seemingly for intervals, but breaking forth again with an occasional power which terrifies me – a really frightful degree of force and vividness.”<sup>27</sup>

<sup>25</sup> [Graves, 1885, p. 614]. The reference to his improvement regarding his “religious habits, tastes, and feelings” is clearly related to the remark he made in the letter to De Morgan, “The little interruption to my thoughts [...], may turn out to have been of service to me,” see footnote 5 on p. 270, and to Graves’ remark that Hamilton would see this as “ultimately beneficial, to disturb anew rooted sorrows,” see p. 270. Hamilton’s last remark, that he now felt “more than before my need of a Saviour, of *The Saviour*” is reminiscent of his remark in the letter to the unnamed “intimate friend” in 1849, “I am induced, and in a manner compelled, to recognise in it the infliction of a hand which is determined that I shall feel and own a Master – against whom I cannot defend myself, when He chooses that I shall suffer,” see p. 65. Perhaps using his pain to work on his religious humility also was, in some way, consoling to Hamilton.

<sup>26</sup> [Graves, 1885, p. 615]. The “duty” will have been his marriage. Writing this all down must have been hard for Graves in those Victorian times; he described Hamilton’s emotional turmoil completely the other way round, as if the “re-opening of the old wound” was an inevitable side-effect of the “probing of spirit”. And although Hamilton did feel an “improvement of his religious habits,” he had mentioned in one of the letters to Catherine that he “long since had grace to pray that God would put upon me any amount of sorrow, or even of humiliation [...] which might be for my spiritual welfare, and might bring me nearer to Him.” It is therefore not at all certain that Hamilton regarded the situation as Graves did, or tried to tell his readers.

<sup>27</sup> [Hankins, 1980, p. 405], [Hankins, 1980, p. 40]. According to Hankins, these were “the most honest lines Hamilton ever wrote.” Which gives a clear view on Hankins’ opinion about Hamilton, as having been always and only in love with Catherine.

Graves writes: "Mr. De Vere's reply is so full both of sympathetic consolation and so wise practical counsel that I consider it a privilege to be able to produce a letter so calculated to be of service to any who have a similar trial to undergo." In this letter, written on the 2<sup>nd</sup> of September, De Vere answered that he liked the sonnet, 'Prayer for Calm', "very much indeed," and that he would "also have no scruple in showing the poem to others, as it does not to the uninitiated betray anything of the particular train of thought or remembrance that happened to suggest it to you." Apparently also having read the second letter, he reacted to Hamilton's feelings of guilt: "I can see nothing whatsoever to blame in such feelings as you allude to. There may be much to blame, it is true, in one's moral or imaginative being, even where in action or intended action there is nothing: but there seems to me in this instance nothing to blame, because while there is nothing which points or tends to what is wrong in action, there is also nothing which saps the energy of the mind or diverts the soul from its nobler objects. Such a remembrance would certainly be injurious to you if it followed you closely or remained with you constantly. It would then both indicate a morbid state of mind and tend to increase that morbidness; but recurring as it does only occasionally, and without your seeing or perhaps desiring to see the object of your remembrance, it seems to me to be like the recurrence of one's youth itself, embodied in the fairest and brightest vision of one's youthful days, and revisiting a spirit that never can wholly leave its youth behind."<sup>28</sup>

About first loves De Vere wrote: "I am myself a believer in love at first sight, though this is not the only genuine love, and also in *one* love, though it is a mere chance whether this should be the first, or should succeed to many shadows and phantoms of would-be love." He then added what Hamilton indeed seems to have done with the image of Catherine, in any case in later years: "[a] person will sometimes meet another who with such vividness embodies to his moral sense and imagination what is beautiful and noble that to him, whether the affection is returned or not, this image becomes an impersonation of that perfection which every great nature thirsts after."<sup>29</sup>

After these consolations De Vere wrote about matters of church, and asked about Hamilton's scientific progress, obviously assuming that his friend would be capable to handle this intellectually; the letter was not just consolatory.

## 8.2 Visit to Parsonstown Observatory

Graves introduces the visit to Parsonstown with the comment: "It was just at this crisis, before his feelings had quite recovered their normal tranquillity, that Hamilton received from Lord Rosse a letter inviting him to meet Professor Airy and Colonel

<sup>28</sup> [Graves, 1885, pp. 615-616]. De Vere, who knew Hamilton very well, obviously understood from the letter that the remembrance did not remain with Hamilton constantly. Knowing Hamilton as he did, he seems to have assumed that Hamilton's daily feelings may have been less intense, which would be consistent with what can be seen throughout Graves' biography; that Hamilton could really immerse in his feelings of the moment yet work or socialize again soon thereafter without writing about that. While Graves thus seems to be all too happily suggesting that Hamilton probably only suffered temporarily from it and that his sufferings were somehow subsidiary to his "probing of spirit" and "religious improvement", Hankins is perhaps too grave about it.

<sup>29</sup> [Graves, 1885, pp. 617-618]

Sabine at Birr Castle, and holding out a prospect of carrying on some study of nebulae with the great telescope, as well as of the enjoyment of social and scientific intercourse. He decided at once to accept an invitation promising so much that would be agreeable and beneficial.”<sup>30</sup>

At Birr Castle Lord Rosse had built, in 1843, the then largest telescope in the world. With this telescope, nicknamed the ‘Leviathan of Parsonstown’, in 1845 it was discovered that one of the nebulae visible in the night sky had a spiral structure, and it was called the Whirlpool nebula.<sup>31</sup> Many such discoveries had followed, and Hamilton wrote about the telescope to De Vere that it was likely “to throw new, and perhaps as yet un hoped for, light on the structure of the universe. Already it has done much, by resolving a great number of nebulae into distinct stars, and thereby showing what had seemed to be only cloudy masses to be in reality “clustering worlds”. The discovery of the spiral character of many of these nebulae is also of great interest.”

Since several important events took place while Hamilton was in Parsonstown, and their order as well as Hamilton’s state of mind during these events is essential for some conclusions in this essay, it is necessary to keep track of the exact dates and of how Hamilton felt. He wrote the first letter to De Vere in Portarlinton on the evening of the 26<sup>th</sup> of August 1848, he therefore arrived at Parsonstown on the 27<sup>th</sup>. The journey, as well as the first days at Parsonstown, must have been very difficult; in one of the letters to De Vere of 1855 Hamilton recalled his feelings during those days: “My agitation at the end of August of that year was extreme, and I remember that I could only find comfort in some [swearing in Greek] while walking by myself thro’ the grounds of Parsonstown.”<sup>32</sup>

While being in Parsonstown, on the 29<sup>th</sup> he wrote the second letter to De Vere, the one which was not given by Graves, “in which he disclosed fully the nature of his trial.” On the 30<sup>th</sup> of August he wrote a letter to Catherine’s son, James Barlow, including a poem; “a sonnet I composed last night, while pacing the lofty gallery of the great telescope [...], Mr. Airy and Lord Rosse being then engaged in a lower gallery, at the mouth of the gigantic tube, whence they were at that moment discovering a new spiral nebula. [...] I ascended that strange aerial gallery, between heaven and earth, where I composed the sonnet which I afterwards pencilled down in the Transit Room, before we came in for the night – or morning – for you may fancy that we do not get to bed very early on a fine night here.”<sup>33</sup>

<sup>30</sup> [Graves, 1885, p. 614]

<sup>31</sup> According to W. Steinicke, in his book about observing and cataloguing nebulae and star clusters, “Lord Rosse was forced to stop all astronomical activity in 1846. The reason was the disastrous Irish potato famine, which lasted until 1848. [...] He was strongly involved, doing everything in his power to help the people. His social engagement brought him much sympathy.” [Steinicke, 2010, p. 100]. Lady Rosse, Mary Field (1813-1885), who was a photographer, played an important role herein; according to S. Hughes, in a 2013 book about the “forgotten lives” of many male and female photographers, Lord and Lady Rosse were “both greatly caring to those who relied on them for their livelihood. [...] During the Irish potato famine, the Countess financed the employment of over 500 men on the Birr estate, with a programme of ‘public works’; when its lake was enlarged, a stable block and a keep gate were constructed; as well as the digging of the massive mock military style ‘star fort’ in front of the castle.” See p. 1072 and p. 1106 of Hughes, S. (2013), *Catchers of the light : the forgotten lives of the men and women who first photographed the heavens*. Paphos: ArtDeCiel Pub. Mary Field made many photographs of the telescope, even stereoscopic ones. She received a prize for her photography from the Photographic Society of Ireland in 1859.

<sup>32</sup> [Graves, 1885, p. 630], [Hankins, 1980, p. 349]

<sup>33</sup> [Graves, 1885, p. 615], [Graves, 1885, p. 620]

I stood expecting, in the Gallery,  
 On which shine down the Heaven's unnumbered eyes,  
 Poised in mid air by art and labour wise,  
 When with mind's toil mechanic skill did vie,  
 And wealth free poured, to build that structure high,  
 Castle of Science, where a Rosse might raise  
 (His enterprise achieved of many days)  
 To clustering worlds aloft the Tube's bright Eye.  
 Pursuing still his old Homeric march,  
 Northward beneath the Pole slow wheeled the Bear:  
 Rose over head the great Galactic Arch;  
 Eastward the Pleiads, with their tangled hair:  
 Gleamed to the west, far seen, the lake below,  
 And through the trees was heard the river's flow.

In hindsight Hamilton did not like the first half of this poem; in 1855 he wrote to Nichol Sr. that the "former part of that sonnet [...] was execrable. Certainly I did not intend to flatter Lord Rosse [...]; but there was something of compliment, or at least of politeness, in my mood, at first, which ought not to be, or rather cannot be, the inspiring spirit of any true and genuine poetry."

Sending "execrable" lines to people can certainly be a sign that his agitation had not yet entirely calmed down, but he continued: "Yet I own that I rather like, on recollection, the last six lines, expressive of an astronomical enthusiasm, including also a feeling for natural beauty, into which my tone gradually deepened." Knowing how important truth was in his poems, he was thus able to feel "astronomical enthusiasm" and "natural beauty"; his agitation was not completely predominant.<sup>34</sup>

### No spiral structure

Hamilton's remark about Mr. Airy and Lord Rosse "at that moment," the 29<sup>th</sup> of August, "discovering a new spiral nebula" is peculiar, and it could indicate that Hamilton was, in any case, not giving all his attention to the astronomy going on around him; in the autobiography of George Biddell Airy, which includes extracts of letters to his wife about his visit in Parsonstown, there is no mention at all of a new spiral nebula or a new spiral structure.<sup>35</sup>

Although Airy's letters are extracts, it is not very plausible that such a discovery would have been left out. Airy wrote that on the 29<sup>th</sup> they saw, with the six feet telescope, as principal objects Saturn, a remarkable cluster of stars, and a remarkable planetary nebula. "With the large telescope, the evidence of the quantity of light is

<sup>34</sup> See p. 146. Likewise describing to De Vere from Portarlinton the beautiful view in his garden.

<sup>35</sup> [Airy, 1896, pp. 200-201]. A new spiral nebula could indicate that either a nebula was discovered which was immediately seen to have a spiral structure, or that a known nebula had in fact a spiral structure. But also in Lord Rosse's 1850 list of discovered spiral nebulae there is no such discovery between April and December 1848, [Steinicke, 2010, p. 116]. Of one nebula no discovery date is known other than that it was discovered before 1851, but that nebula was invisible for this telescope; due to its enormity it was built between two walls and could therefore only be pointed at objects along the local north-south line, called the meridian. It then could follow the objects for some minutes, being able to also move a few degrees in the east-west direction. But the nebula is situated in Virgo which, in the last week of August 1848, passed the meridian late in the afternoon.

prodigious. [...] The planetary nebula looked a mass of living and intensely brilliant light: this is an object which I do not suppose can be seen at all in our ordinary telescopes." But something was wrong with the mounting of the great mirror since only objects near to the zenith were visible "extremely well." Airy then mentions that they observed on the 30<sup>th</sup> of August, but these observations were done in order to find what was wrong when the telescope was pointed low. On the 31<sup>st</sup> the weather was bad, and after they had made the necessary alterations to the telescope on the 1<sup>st</sup> of September Airy wrote: "For Saturn it was very greatly superior to what it had been before."

The rings of Saturn being extremely thin, when the Earth crosses their plane they are temporarily invisible. The repairs made it possible for Hamilton to see, after the plane crossing that year, the reappearance of Saturn's rings the following night, on the 2<sup>nd</sup> of September, which was one day earlier than predicted. Hamilton was very happy with that: "I doubt whether with any other telescope in the world it could be seen to-night. So it will be something to remember that I saw the Ring here a day too soon, namely, on Sept. 2, 1848."<sup>36</sup> Hamilton knew of course what a spiral nebula was, from which it can be concluded that although he did look at Saturn's rings he probably did not look at the nebula himself, just assuming that they were talking about a new spiral form, being distracted by his feelings and his poetry.

### **Walking through the fields of Parsonstown**

Naturally, Hamilton could not write to James Barlow about the reason he had been upset; in the letter of the 30<sup>th</sup> of August he just wrote about his state of mind: "For my own part I believe that I had been working rather too hard and too long some time ago, and I felt somewhat languid and fatigued on arriving here; but if I were asked whether I had enjoyed myself at Parsonstown, I could safely say that I have done so, [...] I enjoy seeing the great telescope and the objects which it reveals. Also I have taken several delightful though solitary walks in the grounds."

The last sentence, about taking delightful walks in the grounds although he wrote in one of the letters to De Vere of 1855 that he remembered that he could "only find comfort in some [swearing in Greek] while walking by myself thro' the grounds of Parsonstown," makes Hankins doubt Hamilton's description of these walks and indeed, it almost sounds like a lie. But that does not have to be the case; having arrived at the 27<sup>th</sup> of August, on the 29<sup>th</sup> Hamilton, who indeed loved nature, had had two days already to walk 'swearing' through the grounds, swearing obviously not being a regular habit for someone like him. Of course, the description of the walks as being delightful can be questioned, unless delightful can also mean that he was glad to be out in the open where he could swear without anyone being able to hear him, thinking his own thoughts while enjoying the beauty of the grounds. Which sometimes can be very comforting during emotional turmoil.<sup>37</sup>

<sup>36</sup> [Graves, 1885, p. 626]. The predictions were that Saturn's rings would not be visible from the 22<sup>nd</sup> of April to the 3<sup>rd</sup> of September, and that they would disappear again on the 12<sup>th</sup> of September for the rest of the year. See for instance p. 5 from the *Canadian Almanac and Repository of Useful Knowledge 1848, being Leap Year*. Toronto: Scobie & Balfour, 1847. <https://archive.org/details/canada184800unknuoft>.

<sup>37</sup> It should also be noted that Hamilton was a fervent walker. He walked from the Observatory to Dublin very regularly, a walk of about eight kilometers, and throughout Graves' biography he was

And indeed, as is known from the descriptions by Hamilton's friends, lying was almost impossible for him, both in the sense that he would not be able to tell a lie without people being able to see it, and that he would be withheld from doing so by his deep truthfulness. Yet, it was shown earlier that he could keep silent about something, certainly if he would judge that for the better,<sup>38</sup> and this can all be recognized in the letter to James Barlow; he wrote about his delightful walks which in the light of who Hamilton was can be taken as the truth, but he kept silent about the swearing and the real reason of his tiredness upon arrival in Parsonstown. As an extra underpinning of these views it is useful to look closely at Hamilton's exact formulation: "For my own part I believe that I had been working rather too hard and too long some time ago, and I felt somewhat languid and fatigued on arriving here." He seems carefully not to have written that he had felt fatigued because he had worked too hard, he just implied a causality.

Having written the second letter to De Vere on the 29<sup>th</sup>, the day before he wrote to James Barlow, Hamilton had unburdened himself, and knowing how good he felt in company, always able to feel the love of friends, it is quite possible that late in the evening of the 29<sup>th</sup> he had started to calm down already, writing his half-execrable, half-beautiful sonnet, apparently still feeling upset but also being able to feel an "astronomical enthusiasm, including also a feeling for natural beauty." Even though he did not take very good notice of what was going on with the, according to Airy, "remarkable cluster of stars" or the "remarkable planetary nebula".

### A sadder and a wiser man

On the 2<sup>nd</sup> of September Hamilton wrote a second letter to James Barlow since he wanted to tell him about a remark Airy had made. He started the letter writing: "I have a message to give you from Airy, which is my excuse for writing to you so soon again – but as to what the message is, you are at my mercy, and must wait till I come to it in my own way." He continued by writing that after having written the first letter, thus still on the 30<sup>th</sup> of August, he had copied his sonnet for Lady Rosse, that the only other guests at that time were Airy and Colonel and Mrs. Sabine (1807-1879), and how in the evening Airy and he had tried each other at "English and other literature" which had made him laugh "more than he had done for a long time before." Finally coming to his message he wrote: "After some time, but before we repaired to the telescope for the night, I told Mr. Airy that "a young friend of mine" – for I was modest enough, on your behalf, not to mention your name to him at present, but you will

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taking walks, either solitary, or with friends, or with his wife. He read books while sitting on the milestones, see p. 306, and even walked at midnight, see p. 196. And he had done so since he was young; in September 1822 he wrote from Trim to Eliza: "You know I never was so fond of the country as not very willingly to exchange it for Dublin. But I really enjoy a solitary walk in the fields on a fine morning – it is then the spirits are most elastic, and mind and body most open to sensations of pleasure. The imagination is more awake, and the fancy takes higher flights. The silent flocks, the warbling birds, the curling smoke from the dwellings of man, and the solitary grandeur of those which he has long since ceased to inhabit, every object of Nature has then its charms, and surely the season is not unfavourable for elevating the soul to Nature's God. A walk with another has also pleasures; but I think of another kind. It dissipates the charming illusions to which you might yield yourself up if alone, and brings you back to the realities of life." [Graves, 1882, p. 114].

<sup>38</sup> That is of course hard to prove, but it was discussed on p. 192 and will be discussed again on p. 291, that if Hamilton withheld information or kept secret about things, he mostly seems to have done that in order to protect his wife; his deep reverence for marriage runs through it all.



doubtless make him hear of it after a few years – had lately expressed himself in a letter to me, as finding the investigations towards the end of the Tract on the Wave Theory “very unsatisfactory.” “Tell him,” said Airy, and now comes at last the message to you that I talked of – “tell him, that I quite agree with him.”<sup>39</sup>

It can be read in the letter that Hamilton was working and enjoying himself, he was, in any case, not only swearing on the grounds. Still on the 2<sup>nd</sup> he wrote as a postscript: “You would have been amused if you had been here last night, to watch Lord Rosse, Mr. Airy, and myself – Colonel Sabine was gone – taking courage by degrees to avow that we were not sorry – were glad – were very glad, to find that the sky was overcast. For five previous nights in succession, we had been up and out, to a late hour, using the telescopes in the open air; nothing very new in kind was expected, as the moon was not yet old enough to show itself on the meridian to the six-foot mirror; and we were all quite happy to be able, without the reproach of losing any opportunity out of doors, to stay comfortably within. Indeed there is a low and partially dome-roofed building near the great telescope, which contains an equatorial and a transit instrument, and where a good turf-fire is kept for eye-glasses and men to come and warm themselves at it at intervals. Ladies also visit the place sometimes, for the same purpose, and I had there a cosy fireside chat some nights ago with Mrs. Sabine, about my old pupil, Lord Adare, who is likewise an old friend of hers, and whom she was designing soon to visit with her husband: and in the same room I have been writing to you, by starts, this evening. But still we preferred to linger over our tea in the drawing-room of the castle last night, and then to get to our beds, for once, at a moderately early hour. I read, however, in my room a long article or essay on Plato, and afterwards some chapters in the Bible; and thus was up till twelve o’clock, tired as I had supposed myself to be: but twelve appeared quite early after the five preceding nights, and I awoke refreshed this morning.”

Also in this second letter to James Barlow Hamilton mentioned his feelings of late but, of course, again without being able to say why; after having mentioned that while ‘trying each other on English and other literature’ Airy had “proceeded to pour forth a most astonishing and amusing medley of verse,” and that “some of it was so comical that I laughed more than I had done for a long time before,” he added: “which did me a great deal of good, for I had not been in good spirits lately.”<sup>40</sup>

On the 5<sup>th</sup> of September Hamilton reacted to De Vere’s aforementioned letter of consolation which was written on the 2<sup>nd</sup> of September: “I think that your remarks upon my recent letters are just, as well as consolatory to me. And as to this word, consolation, though in a very true sense it is applicable, and the thing which it denotes is required, yet, I must say, that I am not ungrateful for the large share of happiness which I have through life enjoyed: nor unconscious that more might have been done by myself to use and temper, well and wisely, those elements of happiness which have been entrusted to my charge. In several important respects I do feel myself happier, though (or perhaps because) calmer, than when I was here five years ago.”<sup>41</sup>

<sup>39</sup> [Graves, 1885, pp. 621-623] That will have been Airy, G.B. (1831), *Mathematical Tracts on the Lunar and Planetary Theories, the Figure of the Earth, Precession and Nutation, the Calculus of Variations, and the Undulatory Theory of Optics. Designed for the Use of Students in the University*. Cambridge: J. & J.J. Deighton. <https://archive.org/details/mathematicaltrac00airy>.

<sup>40</sup> [Graves, 1885, pp. 622-623]

<sup>41</sup> In the spring of 1843 Hamilton had been upset about having to write a report for the Board of Trinity College about the work at the Observatory, and he was still affected by it in July, see p. 401.



In other moods, more different from that just now expressed in form than in reality, I feel myself, as I again take solitary walks through the grounds here, a sadder and a wiser man.”<sup>42</sup> Hamilton also sent, presumably with this letter since in a letter written on the 9<sup>th</sup> De Vere thanked him for these poems, his half-execrable, half-beautiful sonnet, and a Valentine ode he had written for Catherine in February 1825, shortly before he was told that she would get married.

Obviously, around the 5<sup>th</sup> of September, thus nine days after his arrival, Hamilton was able, whether again or always, to reflect positively on his normal life, and as regards his feelings of guilt it is remarkable how he wrote to De Vere that he thought that De Vere’s remarks upon his “recent letters” were “just”; it seems to indicate that the worst agitation which had followed from the correspondence with Catherine had quieted down by then.

Four days later also Airy left; in a letter written to De Vere on the 11<sup>th</sup> of September Hamilton wrote that “Mr. Airy, the Astronomer Royal of England, was here for a fortnight lately, only the first day of which period was before my I own arrival, so that I have seen a great deal of him, and have discovered many points of sympathy, which had before been latent.” Hamilton had arrived on the 27<sup>th</sup> of August and Airy will thus have left on the 9<sup>th</sup> of September.<sup>43</sup>

On the 10<sup>th</sup> of September Hamilton sent another sonnet to James Barlow; “After church to-day, where in a comfortable corner, screened from view, and intended, I suspect, for some former proprietor to sleep in, I took notes in short-hand of the sermon – a thing I scarcely ever venture to do – I walked into the grounds with those notes, to read them as well as I could; but when about a third part had been deciphered, the view of the river, from one of the numerous bridges over its windings here, suggested to me a different train of thought, yielding to which I composed the accompanying sonnet, as a sort of continuation of the one that ended thus: “Gleamed to the west, far-seen, the Lake below; And through the trees was heard the River’s flow.””

Along the river many a sunny day,  
While calm it glided on, or rushed in flood,  
I had strayed, in like diversity of mood;  
My thoughts now gliding soft, with gentle play,  
And now in hearty rapture borne away:  
Calm or perturbed the stream of memory flowing,  
Past pains, old joys, like leaves adown it going,  
Or hopes, like sunbeams, glittering on its way.  
And I had seen that lake reflect a star

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But then he had attended the annual meeting of the British Association and a meeting with some of the founders of St. Columba’s College at Stackallan, and had visited De Vere’s parents and Lord Rosse in Parsonstown; that had helped him to recover, see p. 401. A month thereafter he had found the quaternions.

<sup>42</sup> [Graves, 1885, p. 627]. Perhaps in the context of his penchant for romanticism Hamilton seems to have been striving to become “a sadder and a wiser man”; he had expressed himself in the same manner in January 1832 in a letter, also to De Vere, after having lost hope to marry Ellen de Vere: “My dear Aubrey, on New Year’s Day I returned to the Observatory, of which the walks and rooms are full to me of remembered thoughts and feelings. I have returned, I think, “a sadder and a wiser man.”” See p. 102. And he wrote it again, also to De Vere, in November 1832 after having started to think about marrying Helen Bayly, referring to his struggle to cope with the loss of Ellen de Vere in the foregoing year, see p. 127.

<sup>43</sup> On p. 419 it will be shown more elaborately that Airy most likely left on the 9<sup>th</sup> of September.

Before, or dimpling tremble to the moon;  
 Or bear upon its breast white swans afar,  
 While in some summer shade I sat at noon:  
 Or (Night preparing now her shadowy car)  
 Blend with the twilight's meditative boon.

Now a bit more open about his feelings, although he again could not say why, Hamilton wrote: "I certainly feel that this visit has been enjoyed by me and has done me good; and that I am recovering from a sort of (mental rather than bodily) fatigue and languor, which I was conscious of (*perhaps* from having worked rather too hard some time ago) when I came here";<sup>44</sup> the italics are his. It is remarkable how Hamilton repeated his sentences from the letter of the 30<sup>th</sup> of August while weakening the implied causality; this seems to indicate that to him even this implication was dishonest.

### 8.2.1 Mixed up dates

In the letter to James Barlow Hamilton wrote that he expected to leave Parsonstown on Tuesday the 12<sup>th</sup>, and on the 11<sup>th</sup> he wrote to De Vere how he had walked through the grounds "to take my leave of them," which also indicates that he intended to leave on the 12<sup>th</sup>. But while still at Parsonstown Hamilton received a letter from Catherine, in which she wrote that she had planned to commit suicide.

In an 1853 letter to Dora Disney Evans Hamilton wrote that Catherine had written her "last rational letter", as he called it, on the 5<sup>th</sup> of October 1848, when she had had "that terrible attack of mental disease." It is not entirely clear what Hamilton meant by that: either it was so sinful to try to commit suicide that he assumed that she had become mentally ill, or she really had severe mental problems, in the sense that people around her already considered her to have become mentally ill before her attempt, about which he then may have heard later; in the following years he received news about her from Thomas and Dora Disney when he visited them, and they will doubtlessly have discussed her mental well-being.

In one of the letters to De Vere of 1855 Hamilton recalled that he received Catherine's letter while still being at Parsonstown. Since Hamilton had written that he would leave Parsonstown on the 12<sup>th</sup>, Hankins concludes that Hamilton mixed up the months, and that Catherine thus wrote her letter on the 5<sup>th</sup> of September. Combining Hamilton's "extreme agitation" at the end of August with the arrival of the letter that week, Hankins concludes that Hamilton "was putting on a brave front" and "suppressed his feelings," and that when Catherine's letter arrived "internally Hamilton was in agony, but externally he became even more hearty and jovial."<sup>45</sup>

But reading Hamilton's letters it hardly makes sense that he received Catherine's letter before the 10<sup>th</sup> of September, which would have happened if she wrote it on the 5<sup>th</sup> and sent it soon thereafter,<sup>46</sup> since, as mentioned earlier, on the 10<sup>th</sup> he had written to James Barlow that he felt that "this visit has been enjoyed by me and has done

<sup>44</sup> [Graves, 1885, p. 626]

<sup>45</sup> [Graves, 1885, p. 630], [Hankins, 1980, p. 351], [Hankins, 1980, pp. 349-350], [Hankins, 1980, p. 449 note 8]. The contents of Catherine's letter will further be discussed on p. 288.

<sup>46</sup> Delivering De Vere's letter seems to have taken three days, but he was in London. Catherine was in Ireland, and looking at other correspondences domestic deliveries usually took one day.

me good; and that I am recovering from a sort of (mental rather than bodily) fatigue and languor." Writing that he had enjoyed the visit and was recovering, and sending him a sonnet in which he compared his diversity of mood with the flow of the river while just having received a letter from James' own mother in which she wrote to be on the brink of committing suicide would then have been more than a lie; that would almost have been cruel.

Moreover, on the 11<sup>th</sup> he wrote a second letter to De Vere, starting with the description, given in the quote at the beginning of this essay, of the delicious solitary walk and of the beautiful scenery, and containing the moral contemplation with which he was clearly satisfied. This walk took place in the evening of the 10<sup>th</sup> of September and therefore it can be assumed that he was all right until then; it is very illogical that he would unburden himself to De Vere and then write a letter full of false emotions. If he had already received the letter but did not want to say anything about it to De Vere, he just could have refrained from writing a letter to him.

A possibility could be therefore that Catherine sent the letter later; Hamilton then may have received it after having written the letters to James Barlow and De Vere, thus either in the evening of the 11<sup>th</sup> or on the morning of the 12<sup>th</sup>, the morning of his planned departure.<sup>47</sup>

### Leaving Parsonstown later

But since this letter was of course a very important and unique letter, and Hamilton had a phenomenal and highly trained memory, it is actually rather unlikely that he would be mistaken about the date of Catherine's letter. Perhaps more plausible would be the possibility that Hamilton was not wrong about the date, but stayed in Parsonstown longer than he had expected. And indeed, Hankins did not read in a notebook or in an unpublished letter that Hamilton actually left on the 12<sup>th</sup> of September; according to the notes in the back of his biography he derived the date of departure from the letter Hamilton wrote to De Vere on the 11<sup>th</sup> of September.<sup>48</sup>

Other strong indications that he stayed, and thus received Catherine's letter in October while still in Parsonstown, are that Graves does not mention any letters written by Hamilton between the 11<sup>th</sup> of September, the day that Hamilton wrote to De Vere, and the 18<sup>th</sup> of October. Moreover, Graves writes that "soon after his return to the Dunsink Observatory, [Hamilton] received letters from his noble host and hostess;" Hamilton answered Lady Rosse, who had sent a poem written by Robinson, on the 18<sup>th</sup> of October, and he answered Lord Rosse on the 24<sup>th</sup>, but this delay was due to a search for some early optical investigations which were requested by Lord Rosse. Hamilton wrote to Lord Rosse: "I have not been able to find those old researches of mine to which I believe that you allude; and even if I could now lay my hand upon them, I should fear that they would not be practically useful without much further elaboration on my part, though I own that they once appeared to me to be theoretically interesting. Whenever they do turn up, your having remembered their existence will encourage me to try whether I can put them in any working form. The

<sup>47</sup> [Graves, 1885, p. 630]. That day, the 11<sup>th</sup>, Hamilton had walked through the grounds for hours "to take his leave of them," and had, in an observing room with Lord and Lady Rosse, seen "Venus in full sunshine" with a striking "superiority of the brilliance," [Graves, 1885, p. 630]. He thus will have written his letter sometime in the afternoon or in the evening.

<sup>48</sup> [Hankins, 1980, p. 449 note 8]

hope of their results being in any degree tested by your gigantic telescope, or used in any connexion with it, or with your own researches generally, will doubtless be, as it ought, a powerful stimulus to me to reconsider them hereafter." This all sounds like he had returned very recently; Lord and Lady Rosse seemingly reacting to subjects they had talked about in Parsonstown, and Hamilton's head still full of the astronomy, the science, and the company there.

Also Hankins does not give letters written by Hamilton after the 11<sup>th</sup> of September. Graves writes: "A letter from Lord Adare, written in September, expresses the disappointment felt at Hamilton's absence from the meeting, held [in August] at Swansea, of the British Association; but the visit to Parsonstown had been his recreation, and during the autumn months he occupied himself in preparing for the press his *Lectures on Quaternions*. He sent a proof of the first sheet to Sir John Herschel, from whom he received [an] encouraging acknowledgment;" Herschel wrote his reply on the 27<sup>th</sup> of October.

Graves continues: "The anniversary of the discovery of quaternions, October 16, brought to Hamilton, in a letter from the Rev. T. P. Kirkman, of Croft Rectory, Warrington, intelligence of an able coadjutor in dealing with the imaginaries of the new calculus. Mr. Kirkman's communication, and the coincidence of the date of its arrival, gave Hamilton great pleasure. Mr. Kirkman's results were soon afterwards published in the *Philosophical Magazine*." Herewith the 16<sup>th</sup> of October is the earliest day on which, with some certainty, it can be assumed that Hamilton was at home.

If Hamilton thus received the letter "towards the end of his visit," as Hankins claims, but did not mix up the dates, he may have received it on the 6<sup>th</sup> or the 7<sup>th</sup> of October if Catherine wrote it on the 5<sup>th</sup>, and have left Parsonstown between the arrival of the letter and the 14<sup>th</sup>. That would fit in with being at home on the 16<sup>th</sup>, writing the letter to Lady Rosse on the 18<sup>th</sup> and sending the first proof sheet to Herschel around the 24<sup>th</sup>; he had been preparing this work for two weeks already before Catherine's first letter had arrived in July.<sup>49</sup>

## Reasons to stay

After Airy's departure, most likely on the 9<sup>th</sup> of September, Hamilton did not mention the arrival of new guests, and in 1853 Hamilton wrote to M. O'Sullivan about how, at breakfast during a visit to Parsonstown, he explained the non-commutativity of the quaternion system to Lord and Lady Rosse; in this letter Hamilton explicitly mentioned that no other guest was present.<sup>50</sup> It is therefore entirely possible that, Hamilton being the only guest, Lord Rosse suggested that he would stay; the telescope having undergone improvements now had a wider range of view, making it possible to observe at lower altitudes. Although Hamilton was not an enthusiastic practical astronomer, which included doing many similar measurements, he could be very

<sup>49</sup> [Graves, 1885, pp. 633-635], [Hankins, 1980, p. 449 note 5], [Hankins, 1980, p. 349]. Herschel lived in England, in Hawkhurst, southeast of London, and delivery of letters to England probably took three days, as was seen from the correspondence with De Vere, who was in London.

<sup>50</sup> See p. 340. In 1843 Hamilton visited Parsonstown before discovering the quaternions. In the main text of his biography Graves infers from a letter from Lord Rosse that Hamilton may have visited Parsonstown in 1845, see [Graves, 1885, p. 485], but in the index Graves comments that the letter was written in 1835 instead of in 1845, see [Graves, 1885, p. 717]. This thus must have been the 1848 visit.

enthusiastic about special observations, for instance of eclipses and comets, as can also be seen through his reaction on seeing the rings of Saturn so soon; it was therefore probably an attractive idea to further observe together. Moreover, Hamilton was of course a specialist in optics, and it seems from the letter he wrote to Lord Rosse after having returned home that they discussed optics, in connexion with the telescope or with Lord Rosse's "general researches."

A direct inducement to stay may have been that the rings of Saturn were predicted to disappear again on the 12<sup>th</sup> of September, the day Hamilton had planned to leave, and having seen the reappearing rings a day too early, it would certainly have been exciting to try to also see them a day after they were predicted to disappear. In the night of the 12<sup>th</sup> to the 13<sup>th</sup> Saturn would cross the meridian about half an hour after midnight, and although it would be rather close to the full moon, perhaps with this enormous telescope it would still be possible to see the rings.

That same night the moon would set eclipsed at dawn;<sup>51</sup> they were not in the best position to see it since the total eclipse would start about an hour before the moon would set, but it would certainly be good enough if the view to the west was not obstructed. And although it could not be observed with the large telescope, perhaps it was possible using Lord Rosse's smaller one.

A few days later, on the 16<sup>th</sup> of September 1848, due to the disappearance of Saturn's rings, William Lassell (1799-1880), William Bond (1789-1859) and George Bond (1825-1865) found Hyperion, a moon of Saturn. Father and son Bond were from the US, but Lassell was from Liverpool, which means that the astronomers in Parsonstown may have known it within one or two days. Shortly after midnight the following days they would have a good view on Saturn in the south, the waning Moon each night further to the east, and perhaps they thus tried to see Hyperion, or even find another new moon.

And on the 22<sup>nd</sup> of September William Henry Smyth (1788-1865) drew the reappearance of Comet Encke at Hartwell House in Buckinghamshire; if he could see it, it could also be seen at Parsonstown, and perhaps Lord Rosse wanted to try to observe it with the large telescope. Found in 1818 it was the second comet of which it was known to be periodical, the first being Halley's, the third Biela's comet.<sup>52</sup>

The only reason therefore to assume that Hamilton left Parsonstown on the 12<sup>th</sup> are the indications in his last two Parsonstown letters, but neither in Graves' biography, nor in the short biography of Lord Rosse,<sup>53</sup> is there any evidence for his departure on the 12<sup>th</sup> of September. Although a visit lasting until mid-October would

<sup>51</sup> See *EclipseWise.com*, [www.eclipsewise.com/lunar/LEprime/1801-1900/LE1848Sep13Tprime.html](http://www.eclipsewise.com/lunar/LEprime/1801-1900/LE1848Sep13Tprime.html) [Accessed 23 Dec 2014]. Eclipses were important; Hamilton often referred to eclipses of the moon. For instance, on the 7<sup>th</sup> of January 1852 he wrote to De Morgan: "Many thanks for your important letter, received this morning. It shall be attended to; but I was up all last night for the eclipse." [Graves, 1889, p. 312]. He indeed referred to an eclipse of the moon, see *NASA Eclipse Web Site*, <http://eclipse.gsfc.nasa.gov/LEcat5/LE1801-1900.html> [Accessed 15 Jan 2015].

<sup>52</sup> In 1845 he had also tried to see the comet with the large telescope, see [Graves, 1885, p. 485]. The drawing of comet Encke can be found after p. 342 in Smyth, W.H. (1851), *Ædes Hartwellianæ, or Notices of the Manor and Mansion of Hartwell*. London: Printed For Private Circulation by John Bowyer Nichols and Son. <https://archive.org/details/deshartwellian00smytrich>. Below the drawing it is written: "As seen at its re-appearance, on the 22<sup>nd</sup> of September 1848." Biela's comet was the one which Hamilton accidentally called "Bayly's comet" in 1832.

<sup>53</sup> Challis, J. (1869), Report of the Council to the Forty-ninth General Annual Meeting. *Monthly Notices of the Royal Astronomical Society*, 29 (4): 123-130. <http://articles.adsabs.harvard.edu/full/seri/MNRAS/0029/0000123.000.html> [Accessed 31 Oct 2014].

have been a very long one it is perfectly possible that he did that, both the company and the astronomical events having been exciting. Moreover, it is not known what Lady Hamilton was doing during those weeks; she often seems to have stayed with family when Hamilton was away for a longer period of time and it is therefore not at all unthinkable that she now also was not at home. Her sister in England had died in 1846 and having lived there for so long during her illness in 1841 she may have revisited her family there; her sister Mrs. Rathborne of Dunsinea would die a year later and thus may have been ill, perhaps Lady Hamilton was taking care of her as she had done for her mother. Indeed, for someone with such an enormous direct family there are very many possibilities. And it is of course known that Hamilton did not like being home without his wife; perhaps there are letters written during these months which would throw a light on the Hamilton's whereabouts those days.

It can be wondered though what Lady Hamilton must have thought of Hamilton prolonging his visit, if he indeed did that, and there is some indication whereupon it can be guessed that she may have approved. Hamilton wrote that he was extremely agitated at the end of August, and she will have noticed that; she was married to him for fifteen years already. She knew of course that he had not attended the meeting of the British Association, she knew about Catherine, and she doubtlessly knew that he had been coaching her son. It thus was probably easy for her to guess that his distress had to do with Catherine, moreover, it is even not unthinkable that they talked about it, albeit probably not about the details; Hamilton would not have burnt the original letters if they would not have been a problem.

Travelling always having done him good it is quite possible that she hoped that also this time the diversion from his troubles would do him good, and she was probably not too worried because Catherine had always been there and he had told her about his feelings for her from the beginning. His deep feelings for Catherine and Ellen will doubtlessly have been part of her considerations before accepting his marriage proposal; her acceptance shows that she will have trusted him in that.<sup>54</sup> And living at the Observatory she must also have known about the eclipse and the comet and the rings of Saturn.

### 8.2.2 The last “rational” letter

According to Hankins, Catherine's letter was written “in open defiance of her husband. The letter contained a stamped envelope and instructions to Hamilton to mail the letter to her husband in the envelope provided. The contents of the letter and

<sup>54</sup> Indeed, in 1852 Hamilton wrote to De Morgan that a visit to the north of Ireland had “done my health and spirits so much good, that Lady Hamilton says I “ought to go very often to Carlingford,”” see footnote 119 on p. 265, although she must have known that he visited Thomas and Dora Disney there; she apparently did not oppose their friendship. According to Hankins, Hamilton learned in October 1850 that the Disneys had to sell their estate, Rock Lodge, and they then must have moved to Carlingford; Hamilton visited them there both in 1852, 1853 and 1854, see [Graves, 1885, p. 677], [Graves, 1885, p. 690] and [Graves, 1889, p. 16]. In 1854 Thomas was looking for work and Hamilton helped him; according to Hankins “Hamilton used all the influence he could muster to try to find a job for Thomas. [There are] many letters on this subject between the dates of Nov. 23 1854, and May 11, 1856.” [Hankins, 1980, p. 450 note 16]. According to Hamilton in 1855 they moved to Finglas, see footnote 52 on p. 178; Finglas being only some three kilometers from the Observatory they practically became neighbours. The original Rock Lodge does not exist anymore as can be seen from the maps of the *National Inventory of Architectural Heritage*, [www.buildingsofireland.ie/cgi-bin/viewsite.cgi?siteid=5167](http://www.buildingsofireland.ie/cgi-bin/viewsite.cgi?siteid=5167) [Accessed 24 May 2015].



the handwriting showed signs of a complete emotional breakdown.” Not trusting his emotions Hamilton could not go and see her, “his purpose would have been innocent, “but who would vouch for the innocence of the results?”” He decided not to send the letter, but in the meantime Catherine, expecting Hamilton to send it to her husband, took a heavy dose of laudanum, a mixture of alcohol and opium which was then used mainly as a painkiller, yet she survived.<sup>55</sup>

Remarkably, Hamilton seems to have been less stressed by this letter than by the six-week correspondence; he wrote to De Vere, in 1855, that his “agitation at the end of August of that year was extreme” but, apparently, not that it became extreme again. There is a way to explain this difference: through the six-week correspondence he had learned that he had lost her to an unhappy marriage which must have been very hard to take, but it is very likely that while receiving her letter he did not know yet that her marriage had been forced upon her. Through his deep conviction that suicide is sin, he therefore may have assumed that she literally suffered from what he called a “terrible attack of mental disease.”

Hankins does not give Hamilton’s reasons not to send the letter, but it can be assumed that he, regarding marriage as holy and in the practical sense as “dear and obligatory”, was certain about what was the right thing to do. According to De Morgan “in the matter of right and wrong, Hamilton was very simple-minded,” and De Vere showed the boundaries of their times when he wrote that there was nothing to blame “without your seeing or perhaps desiring to see the object of your remembrance.” Visiting her will thus have had as a consequence that Hamilton would lose the trust of his wife, his family and his friends, and his self-respect for doing sin.<sup>56</sup>

After these events, according to Hankins “Catherine lived almost constantly with her mother or with her sisters and brothers. She saw her husband seldom, although there was no legal separation.” But every now and then Hamilton visited Thomas and Dora Disney and through them she sent him presents: a Bible and a Prayer Book, which he used without revealing that they were gifts from her. And when in 1850 Hamilton and James Barlow together visited the meeting of the British Association in Edinburgh, where “we lodged in the same house, and had one common sitting room, so that we saw a good deal of each other,” as Hamilton wrote to Eliza, Catherine sent him “a note of presentation” “to go with [the] Bible and the Prayer Book.”<sup>57</sup>

<sup>55</sup> [Hankins, 1980, p. 349], [Hankins, 1980, p. 350]. Hamilton wrote about the “innocence” in one of the letters to De Vere of 1855, but it is not clear from Hankins’ biography whether he was talking about his feelings for Catherine or for her husband.

<sup>56</sup> See p. 44, p. 277.

<sup>57</sup> [Hankins, 1980, p. 350], [Hankins, 1980, p. 449 note 13]. Hamilton coached James Barlow until May 1850; the quaternions were a part of the examination then, and unlike in 1848 this time James Barlow succeeded in winning a fellowship. According to Hankins “Barlow’s success and the trip to Edinburgh were gifts for Catherine and revenge against her husband, who could not help James as he had done.” Hankins also mentions that Hamilton gave James Barlow the same information about quaternions that he was giving to Charles Graves who was lecturing on them, yet, both the revenge and the supposition that Hamilton thus cheated are not very easy to reconcile with Hamilton’s character. Mentioning the revenge and the lodging together, Hankins refers to three letters written by Hamilton: one in October 1855 to Nichol Jr., one written to his wife while they were in Edinburgh but this letter is not given, and one written two weeks later to Eliza in which, according to Hankins, Hamilton wrote: “James Barlow (son of Mrs. Wm Barlow) [...] very recently won a Fellowship in Dublin, chiefly (as it is supposed) through his knowledge of the quaternions (acquired through my assistance).” [Hankins, 1980, p. 449 note 13]. He thus was very open about it, and he was congratulated by S. O’Sullivan with James Barlow’s success, [Hankins, 1980, p. 449 note 12]; indeed,



Hamilton wrote a letter to his wife while being in Edinburgh, and it is unfortunate that this letter is not given. Assuming that James Barlow did not know about his feelings for Catherine, receiving a note from James' mother must have put Hamilton in a bizarre situation. It is not known whether he received Catherine's note of presentation before or after writing the letter; if he wrote it before receiving the note it would shed some light on how he would write to his wife while sharing lodgings with Catherine's son, and if he wrote it after receiving it it would also show how he dealt with such difficult situations.

In the meantime Catherine was losing her faith, and according to Graves "Hamilton, deeply moved by the state of spirits, as reported to him, of one long dear to his heart and imagination, composed [on the 10<sup>th</sup> of May 1850] the following lines concerning which, in a letter written some years afterwards, he says: "I am very unworthy to write on such a subject, yet at least my feelings and convictions, as expressed in those verses, were and are sincere."'" Hamilton did what he could to try to comfort her within the boundaries of their time, and through her brothers he sent her, together with this poem, the sonnet 'Prayer for Calm', "a lock of hair to be mingled with hers after his death," and a book he had borrowed from a friend "to try to reclaim her lost religious conviction."<sup>58</sup>

TO AN AFFLICTED FRIEND

SUFFERING UNDER RELIGIOUS DEPRESSION.

O suffering saint! and too severely tried,  
But that thy God, unseen, is at thy side;  
And, even when most His comforts seem to cease,  
Still leads thee onward to a heavenly peace:  
Refines through pain, from earth's allurements wins,  
Breathes holy joy – in guise of grief for sins!  
Thyself to blame, by Him acquitted be,  
Such is the present lot assigned to thee.  
But thou shalt see thy Saviour face to face,  
The dark vale issuing in a sunny place;  
Feel with surprise how His supporting arm  
Hath brought thee through that valley, safe from harm;

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everyone knew that he was coaching him. And it is hard to believe that he would write to his extremely religious sister and his pious wife about feelings of revenge or about dishonest behaviour; writing to them about the help he gave James Barlow would rather be a sign that he himself regarded it as honest. Of course, it is possible that in the letter to Nichol Jr., written on the 10<sup>th</sup> of October, he mentioned feelings of revenge; but Hankins does not quote the letter, and although Graves does give a part of that letter he of course left out any parts about Catherine. Still, this letter being only the second letter to Nichol Jr. given by Graves, [Graves, 1889, pp. 43-44], the part which is given does not seem to suggest revengeful feelings; Hamilton introduced himself as a correspondent, told his new friend about his correspondents De Vere and De Morgan, and contemplated how a friendship could have been if they would have met "as two young men," Hamilton being fifty, and Nichol Jr. twenty-two. It remains an open question though what James' father must have thought of his son being coached by Hamilton.

<sup>58</sup> [Hankins, 1980, p. 350], [Hankins, 1980, p. 353], [Graves, 1885, p. 652]. For the borrowing of the book see p. 317. Both poems are included in a collection of religious Irish poetry, see pp. 326-327 of MacIlwaine, W. (1878), *Lyra Hibernica Sacra*. Belfast: M'Caw, Stevenson & Orr. <https://archive.org/details/lyrahibernicasac00macirich>.

Own the past glooms but blessings in disguise,  
 And that He viewed thee still with loving eyes.  
 Forsaken thou mayst seem, but He is near,  
 Hears every prayer, and numbers every tear;  
 And knowing, feeling our infirmity,  
 Forgets not that dread moment on the tree,  
 When from his own Humanity, awhile,  
 Appeared to turn away His Father's smile;  
 And His strong cry of agony went up,  
 As that desertion seemed to brim His cup!  
 Triumphant now o'er sorrows every wave,  
 And able to the uttermost to save,  
 He yet is touched by sufferings once His own,  
 Nor leaves His blood-bought friends unheard to groan;  
 A merciful High Priest, and faithful, now  
 In holiest place presents each troubled vow:  
 And aids the Comforter, by promise given,  
 To intercede, ineffably, in Heaven.

It must have been hard for Hamilton not to be able to visit Catherine, and it is not known what she thought about it. Although she did not live with her husband anymore it is very doubtful that in the Victorian era a married woman would easily feel free from her marriage even when not living with her husband anymore, and if she did feel released it is still possible that her family did not look at it that way. Catherine's father was still alive when this all happened, but it is not known from the biographies how he reacted; if he indeed had an "iron will" it may have been difficult. Also, public opinion about divorces, and probably also about separations, was strict and the consequences for children "disastrous", as James Barlow mentioned in a science fiction novel he would publish in 1891.<sup>59</sup> He was twenty-two years old, and Catherine's youngest son only thirteen, when she made her suicide attempt.

### Not telling everything

It does perhaps seem strange that such a devout and humble Christian as Hamilton would conceal things from his wife, even using the Bible and the Prayer Book he received from Catherine without revealing they were gifts from her; that can surely be regarded not to be very good Christian behaviour. Searching in Graves' biography, some ideas were formed about how Hamilton coped with that.

As to using the Bible and the Prayer Book, whether or not that was due to a predilection for romanticism, Hamilton seems to have searched for the boundaries of loving Catherine without doing sin. Finding those boundaries did not go without trouble; according to Hankins Hamilton "carried a burden of guilt caused by his continued affection for Catherine Disney." But he honestly tried; as mentioned earlier, in 1852 Hamilton wrote about himself: "Indeed I have much for which to seek forgiveness both from God and man – but certainly I have never caused pain for any gratification of my own."<sup>60</sup>

<sup>59</sup> See p. 315.

<sup>60</sup> [Hankins, 1980, p. 243], p. 192

It will all have been difficult; news about a suicide attempt and a subsequent separation in their social circles will have travelled fast, and his wife must have heard about it. Although he did hide things from her, it is therefore even possible that, as they perhaps also did before he left for Parsonstown, they talked about Catherine and Hamilton's feelings for her; she knew about them since she met him. Yet from Hankins' biography it is certain that he did not tell her about the mutual presents; regarding marriage as a holy covenant, Hamilton had to make sure that their marriage would survive, and he may have been very afraid to upset Lady Hamilton. If she would feel threatened by the knowledge that he thus had contact with Catherine, albeit indirectly, she could conclude that her marriage was in jeopardy, and perhaps become 'hysterical'. Female hysteria being regarded as a common disease almost any woman could be diagnosed with it, and therefore certainly also Lady Hamilton; she had suffered from an "illness of a nervous character" already.

If she then would be diagnosed with hysteria, there was always the risk that the doctors would send her to an asylum, and Hamilton probably knew that he would not be able to handle such a separation; it had always been very hard for him to be alone. Indeed, he seems to have been very protective of her throughout their marriage; a protectiveness which can for instance be seen in his often nursing her, in his 'good advice letter' of February 1833, and in his convincing her pastor to enter into religious conversations with her when she was suffering from her second "illness of a nervous character" in 1856.

Another situation where Hamilton's protectiveness can be seen is found in Hankins' biography; one of the reasons Hamilton chose Helen Bayly was her piety and that, of course, had consequences. Hankins writes that in May 1856, during her second 'nervous illness' and five years after De Vere conversed to the Roman Catholic Church, Lady Hamilton, who had "witnessed all these changes with concern," regarded De Vere as a threat and even "opposed his visiting the Observatory." Hamilton then wrote to De Vere that he did not show his letters to his wife and gave as a motive: "because I knew that she felt somewhat afraid of your opening a vast vulpine throat, and swallowing me down, body and soul."<sup>61</sup> He thus seems to have wanted to protect her from fear or agitation, and perhaps himself from having agitated her.<sup>62</sup>

Hamilton continued to keep things away from her; in 1855 he wrote to his then new friend Nichol Jr. that "Professor De Morgan, of London, [...] and I have exchanged a great number of pleasant letters, partly no doubt on mathematics, but we are not afraid to write nonsense to each other; at least I send him nonsense at times, and he sends me back wit in return, rising occasionally to humour. I wonder whether I shall ever venture to show you (if I can lay my hand upon it) that letter from Mrs. Flamsteed [(.. -1730)] to the late Francis Baily [(1774-1844)], which De Morgan professed to find among the papers of the latter! Flamsteed [(1646-1719)], you know, was the first Astronomer Royal at Greenwich, and a quarrel between him and Newton [(1642-1726)] has even recently become matter of discussion. Baily died only a few years ago, but he had taken Flamsteed's part in the controversy."<sup>63</sup>

<sup>61</sup> And although it is not known when exactly, there were problems between her servants and those of De Vere, see p. 175, which will not have helped De Vere's case either.

<sup>62</sup> See p. 153, p. 226, p. 385, [Hankins, 1980, p. 243].

<sup>63</sup> In 1836 an article had been published about this controversy as a book review of Baily, F. (1835), *Account of the Rev<sup>d</sup> John Flamsteed, the First Astronomer-Royal: Compiled from His Own Manuscripts, and other Authentic Documents, never before published*. London: Printed by order of

Mrs. Flamsteed writing (if I remember) from 3, Paradise Row (or perhaps it was, from 3, Astronomer's Row, Paradise), tells Baily that her good man is just gone out to take a social stroll with Sir Isaac, with whom he has become quite reconciled; but that, as to that scoundrel, Halley [(1656-1742)], who had come between them, it is lucky for him that he had not come up [to Paradise] for her husband would have beaten him within an inch of his life! (after all, Halley, whose name has been given to a comet, was in many respects a fine fellow.) I never write in that style myself, but certainly I enjoyed De Morgan's report of that celestial-infernal letter – though I did not show it to my wife, who would (or at least might – I was not sure) have said it was profane.”<sup>64</sup>

Also from other letters by De Morgan is rather easy to see why Hamilton withheld them from his wife; according to Graves “the correspondence between Hamilton and De Morgan in 1861 was much occupied with the controversy carried on in the *Athenæum* with Mr. James C. Smith [(1805-1872)], the circle-squarer. [...] De Morgan had a peculiar pleasure in belabouring this pretender to a mathematical achievement.” In May 1861 De Morgan wrote to Hamilton: “I have sent your proof to the *Athenæum* – you see Mr. Smith wants a little more killing ... As to convincing Mr. Smith, you will convert Father Flaherty's pig to Protestantism first. When the animal solemnly abjures the errors of Popery on his hind legs, with his fore paw on the Gospels, then try Mr. Smith. But easiest first, always.”<sup>65</sup>

Yet, taking her piousness absolutely serious, Hamilton did speak with his wife about matters of church; in July 1856, near the end of her second “illness of a nervous character”, he “wrote out for himself” a few remarks regarding “Romanism”, and “showed [them] to Helen, with some dim purpose of hereafter letting A. De Vere see

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the Lords Commissioners of the Admiralty. <https://archive.org/details/anaccountrevdjo00bailgoog>. The article, Life and Observations of Flamsteed – Newton, Halley, and Flamsteed, was published in the *Edinburgh Review, or Critical Journal*: for October, 1835, .... January, 1836, Vol. LXII, pp. 359-397. <https://archive.org/details/edinburghreviewo62londuoft>. According to *The Newton Project*, [www.newtonproject.ox.ac.uk/view/texts/normalized/OTHE00091](http://www.newtonproject.ox.ac.uk/view/texts/normalized/OTHE00091), the article was written by Thomas Galloway (1796-1851). In the article it is stated that, while Newton was president of the Royal Society, Halley had, with Newton's help, published Flamsteed's still unfinished star catalogue “without the consent of the author, but in direct opposition to his wishes, and in spite of his remonstrances.” Thereby Halley made alterations, and Flamsteed “undertook to reduce it anew, and publish it, together with his numerous observations, at his own expense – [...] he died whilst the work was in progress – and [...] it finally appeared at the expense of his widow, and through the exertions of two of his friends, who had been his assistants in the Observatory.” It was, in the end, Mr. Baily who took care of “the republication of the Catalogue, in a corrected form, accompanied by such portions of the papers as were necessary to place Flamsteed's character in its true light, or as tended to illustrate the scientific history of the period [...], the result has been the appearance of the sumptuous volume now before us. [With this volume] Flamsteed is himself brought into court, and allowed to make his own statement in his own manner, and in his own words; – and, if he occasionally indulges in strictures on the conduct of his contemporaries with a severity which the occasion does not seem to call for, and uses language that cannot, under any circumstances or state of manners, be justified, some allowance will be made for the provocation he received, and for a temper whose constitutional irascibility was increased by almost continual ill health.” Indeed, Flamsteed had called his ‘Catalogue of the fixed stars’ “corrupted and spoiled by Dr Halley,” and he had called Halley “as lazy and slothful as he is corrupt” and a “lazy and malicious thief,” while, according to Flamsteed, Newton had called him “ill names, puppy, &c.”

<sup>64</sup> [Graves, 1889, pp. 44-45]. The funny and ironic “letter from Paradise” can be found on pp. 188-189 of De Morgan's posthumously published 1872 book, *A Budget of Paradoxes*. London: Longmans, Green, and Co. <https://archive.org/details/budgetofparadoxe00demorich>.

<sup>65</sup> [Graves, 1889, pp. 563-564]. Smith had published his ‘solution’ in 1859 as *The Problem of squaring the Circle solved*. London: Longman, Brown, Green, Longmans, & Roberts.

them;" he did value her opinion. He showed her De Morgan's letters, or parts of his letters, of which he did not think she would consider them "profane", and to Nichol Jr. he wrote, sounding lovingly, that "she has been much amused with many of De Morgan's letters, and I think would welcome him here."<sup>66</sup> It is easy to judge from our perspective.

### 8.3 Difficult years and daily life

After 1848 times remained difficult for Hamilton, although, as was concluded by De Vere, it can be assumed that his remembrances recurred only occasionally. Indeed, Hankins writes that later Hamilton "was astonished that he had had the constancy to produce the *Lectures on Quaternions*, his first great work on quaternions, while suffering the anxiety of Catherine's illness and his own separation from her."

Yet he did, and most of the time he was just occupied with his normal life. He had his wife, his children, relatives, servants and his assistant around him daily while he was mainly occupied with writing the *Lectures*. He had learned, after Ellen de Vere, how not to sink into long periods of gloom by "vigilantly and resolutely" excluding "all voluntary recollection" of Catherine in this case, combined with "ardent and persevering exertion." Perhaps excluding all voluntary recollection was somewhat less resolute now, perhaps he succeeded only periodically, and perhaps he did not even know himself how much of his intense work on the *Lectures* was motivated by the sheer beauty of the quaternions or how much was needed not to sink again into melancholy or desperation; still, he does not seem to have been as gloomily or depressed as he had been then.

On the last day of 1848, in a letter to Graves "of which a copy from memory is preserved in one of his manuscript books, [Hamilton] says: "I look forward to the coming year in a spirit of hope and duty, exertion and endurance"; and after reverting to the course of trials he had gone through, he speaks of it as "long since effectually overruled (as I am deeply and intimately convinced, and profoundly thankful for the conviction) to my moral and spiritual good"; he expresses his trust that he is "in consequence greatly and permanently improved, a better Christian, a better man. ... As marks of the improvement, I may mention that I have been led to read the Bible more regularly and attentively than before, and to engage in prayer for myself and for absent friends with greater frequency, fervency, and faith."

According to Graves, the six weeks of correspondence with Catherine was the only period Hamilton ever really interrupted his mathematical work, although he also received lower grades than usual in 1825, after he had heard that Catherine was going to get married, and he had hardly been able to work during Lady Hamilton's stay in England. But the pain not being very acute anymore, Hamilton seems to have been able again to live his home life and think of Catherine in almost perfect separation, something which was illustrated by his remark, in one of the letters to De Vere of 1855, that his "three loves have been of kinds entirely different, and were felt all along to be so. I do not think that I ever confounded the three feelings [...] having been characteristically those of a lover, a brother, and a husband."<sup>67</sup>

<sup>66</sup> [Graves, 1889, p. 64], [Graves, 1889, p. 45]

<sup>67</sup> [Hankins, 1980, p. 352], [Graves, 1885, p. 639], p. 145. Hamilton thus also wrote to Graves

Graves writes about 1849: “there is not much to record;” Hamilton worked on a daily basis, although he also attended dinners, parties and the “first visit” of the Queen to Ireland. And he could have very open-minded discussions and even fun: in June he noted in a memorandum that he had dined at the house of S. O’Sullivan where he talked with Isaac Butt (1813-1879), “speaking more quietly by ourselves,” about the possibility they saw to infer from the Bible that Christ may also have died for inhabitants of other worlds. In the evening there was music, and “Mr. O’S. himself sang, or joyously chanted, with great spirit a very amusing song lately composed on the successes of General [Hugh] Gough [(1779-1869)] in India. Butt insisted on my joining him in the chorus, which ended somewhat thus: –

Our Irish Hero’s victor been,  
Where fought famed Alexander:  
General Gough’s a cross between  
A bull-dog and a Salamander.

I walked home, and had a lovely night for doing so.”

That year he did not have time to attend the annual meeting of the British Association but he does not sound very regretful about it, writing to James Barlow on the 11<sup>th</sup> of September: “Perhaps I may be off to Birmingham, for a day or two, before the meeting closes – it is to open to-morrow; but you will have time to write to me at least once before I go, and I shall be glad to hear from you.” And he added quite funnily, or by his standards perhaps almost mischievously, “I must now conclude, after *using a dun* as a messenger to take this note to the post. When that necessary evil of paying money occurs, I sweeten it, sometimes, by thus writing to a friend, and making the payee carry the letter.”

About missing the meeting of the British Association Graves writes: “Mr. Samuel Beale [(1803-1874)], of Birmingham, had offered him the hospitality of his house, but he was unable to complete in time some work on hand, and was obliged to content himself with sending to Section A a Paper *On Polygons inscribed in a Surface of the Second Order*. This communication, on the ground of its abstruseness, was not reported in the *Athenæum*. Referring to this fact, De Morgan, to whom Hamilton afterwards sent the Paper, writes, “I agree with the *Athenæum* that your theorems are abstruse, but they should have reported them for those who like abstruse things.”<sup>68</sup>

And in December 1849 Hamilton wrote something remarkable to Graves’ sister Madame Von Ranke, who had asked him to become godfather to her son:<sup>69</sup> “You may be sure that I retain a very kindly and even affectionate recollection of the constant kindness which I received from your father, and indeed all your family, yourself included, during those collegiate and immediately subsequent years of mine which,

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about his “trials”, although Graves hardly comments on that.

<sup>68</sup> [Graves, 1885, p. 641], [Graves, 1885, pp. 643-644]

<sup>69</sup> Hamilton gave the reason why he accepted the “office of a godfather”; also being godfather to a grandson of Wordsworth he wrote: “As I have already, on one or two occasions, consented to accept that office, at the request of persons who were not, by birth or marriage, connexions of my own, I cannot refuse to do so for a friend of so long standing as yourself – you were very young, you know, when I first became acquainted with you at your father’s house – and for a stranger so eminent and so much respected as your husband.” Encke stood as Hamilton’s “most fitting proxy,” and Graves mentions what “high honour [Encke] felt it to be his representative. This godson of Hamilton’s died early.” [Graves, 1885, p. 644].



though not without their share of the sorrows incident to youth (sorrows the recollection of which has to this day the power to agitate and sadden me), were still, no doubt, upon the whole, the happiest time of my life. That I have continued to enjoy the friendship of your brothers as fully as I ever did, and that you, too, have not forgotten me, I must, and do, regard as among the chief pleasures, or (as I ought rather to call them) blessings of my later existence; respecting which it would be very ungrateful in me to deny that it has been marked by many blessings." And with the letter he sent her his sonnet 'Prayer for Calm'.

What is so remarkable here is that in this letter Hamilton claimed that his collegiate and immediately subsequent years were, despite the sorrows, the happiest time of his life; the same years of which he also claimed that he had been depressed but had maintained a "philosophic calm". Searching for some understanding of why he made this statement, and realizing that this is written to a woman friend of his youth, first his "grave, old-fashioned gallantry" comes to mind, which makes it hard to see what was gallantry or just socially accepted, and what not.

But this letter, and the fact that he included the poem 'Prayer for Calm', also again supports the idea that Hamilton could be completely immersed in the feelings of the moment, apparently directly connected to whom he was writing to, allowing for entirely opposite conclusions from his letters in general. It thus seems impossible to infer from his letters how he felt during longer periods of time; his very strong beliefs, and his profound trust in them, seem to have been guiding in his life, giving him his strong basic certainties, rather than his feelings of the moment.<sup>70</sup>

And lastly, happiness, with its strong connotation to joy and fun, was not his goal in life as can be seen throughout the biography, for instance through his repeated remarks to have become "a sadder and a wiser man". Indeed, it can be read that in those younger years he had a lot of fun. He had a lot of friends, wrote humorous essays and could laugh like a volcano. He was invited to many dinners and was so lively that he made the impression of wanting to be fastened to a comet's tail. But although that was important, even to Hamilton, it was not what he was striving after. His ultimate goal was his imperishable name, his eternal fame, while remaining to be a humble man, both religiously and socially. Assuming, as was done earlier, that remaining to be humble must have been very difficult for someone like Hamilton, he will have needed all his sadness and sorrow to work on his "religious improvement". And although every now and then he could boast about himself it did not get out of hand, he always maintained the capacity to listen to other people and give credit where credit was due; he was never described as a bragging or egotistical person.<sup>71</sup>

<sup>70</sup> [Graves, 1885, pp. 639-640], [Graves, 1885, p. 645], p. 434, p. 145, p. 135

<sup>71</sup> As an example of Hamilton's seriousness in giving credit Graves writes: "Early in the summer of 1857 John Graves had sent him from Cheltenham, for communication to the Royal Irish Academy, a Paper entitled 'A Fundamental Theorem respecting Congruences affecting a Class of Complex Integers which involve the Imaginary Cube Roots of Unity': having received permission from the Council, Hamilton had given formal notice of the reading of this Paper, carefully assigning the authorship to Mr. Graves: but by some mistake this notice, when printed, omitted the clause naming the author, and thus the Paper appeared to be a contribution from Hamilton himself. He instantly, at his own expense, had 500 copies of a memorandum correcting the mistake printed for distribution among the members of the Academy: he did this, not thinking it right to wait for the next Academy meeting, at which in point of fact, he read the Paper, in conjunction with two of his own, but taking particular care to indicate the distinct authorship. It may not be unnecessary to point to the fact that the Paper was one of which he was willing to be the sponsor, and the results of which



## Romanticizing

Comparing their biographies, Graves and Hankins seem to differ considerably in their views on Hamilton. While Graves sounds very impressed by Hamilton's 'beautiful' character and religious humility, Hankins appears to be concentrated on Hamilton's very romantic, yet unhappy feelings. And while Graves blames Lady Hamilton for Hamilton's troubles which Hankins does not, in Hankins' biography she is, apart from the chapter in which he describes the marriage, an almost complete bystander, which she is not in Graves' biography. Another example of the different views Graves and Hankins have on Hamilton's personal well-being, where Graves seems to be too optimistic in times of turmoil, and Hankins too pessimistic in general, can be seen in the following descriptions of an event which happened during a visit, in 1850, to Thomas and Dora Disney who then still lived in Rock Lodge near Trim.

To describe this event, Graves uses the letter Hamilton wrote to his sister Eliza on the 12<sup>th</sup> of January 1850: "During my visit [...] I also procured admission to the old mansion of Summerhill, both going and returning, and was for some minutes alone each time in the drawing-room, where I first met the Disneys in 1824. Although, upon the whole, the house is greatly decayed, yet that room is kept up with neatness and even elegance by a young lady whom I did not see. I took the liberty, however, of carrying away the flower-leaves as souvenirs from two of the stands in the three windows of the room. This was in the twilight of New Year's Day, on my way to Rock Lodge; and on my return thence, last Monday, being again alone in the same drawing-room, where I first saw C.D., a very pretty and curious-looking lady's dog, which I do not know how well to describe, tall and with silky hair, rose from the hearth-rug with an air of the greatest fondness, stretched up its head, and kissed my lips, without my having petted it at all." <sup>72</sup>

For the same event Hankins uses a description Hamilton wrote five years later, in one of the letters to De Vere of 1855; "In April 1850, when he was coaching James Barlow for the fellowship examination, Hamilton had visited relatives at Trim and

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he employed himself in extending by means of Quaternions." [Graves, 1889, p. 77]. And sometimes Hamilton even spent more effort on giving credit to whom it belonged than he perhaps had to: at the Meeting of the Royal Irish Academy in December 1846, according to Graves, "Hamilton exhibited Professor Mädler's [(1794-1874)] work, *Die Central-Sonne*, Dorpat, 1846, in which the author makes "a first provisional attempt to determine the orbit of our own sun, with the help of the proper motions of a great number of stars, combined with Bessel's parallax of 61 Cygni." By some confusion of the reporter, this latter presumed discovery was, in the account of the evening's proceedings, published at the time in the *Dublin Evening Post*, attributed to the Irish instead of the Swedish Astronomer, and the consequence was that Hamilton was overwhelmed by inquiries and congratulations. He took the best method of disclaiming merit not belonging to him by sending to [*Saunders' Newsletter* of the 1<sup>st</sup> of January, 1847] a full statement of the results arrived at by Mädler." [Graves, 1885, pp. 542-543], [Graves, 1889, p. 637]. Von Mädler had concluded that the Central Sun, around which our sun orbits, was Alcyone, one of the Pleiades. Mädler, J.H. von (1847), *Die Centralsonne*. Dorpat: Gedruckt in der Universitäts-Buchdruckerei von J.C. Schünmann's Witwe. The second German edition of 1847 can be read online at the ETH-Bibliothek Zürich: [www.e-rara.ch/zut/content/pageview/8480217](http://www.e-rara.ch/zut/content/pageview/8480217).

<sup>72</sup> [Graves, 1885, p. 648]. This "mansion" was Summerhill House; in September 1825 he called it a "castle", see p. 57. In the description of Summerhill House on the website *The Irish Aesthete*, <http://theirishaesthete.com/tag/summerhill> [Accessed 15 May 2015], it is mentioned that its owners "never seem to have had sufficient funds to oversee a comprehensive refurbishment. In fact in 1851 the estate was offered for sale. However, some work was done on the house, including a new main staircase, in the 1870s." The house was destroyed by fire in 1921 and finally demolished in 1970.

had gone over to Summerhill to see once more the place where he first met Catherine: "I ... made pilgrimage ... to the mansion where we first met, now fallen into much decay, and passed into other hands; and ... kissed, in the twilight, alone, the spot whereon I first saw rest the feet of that Beautiful Vision! ... a lady's spaniel, whose mistress I have never seen, but which had seen me kiss the ground, in that large drawing room by twilight, rose with great gravity, and licked my lips."

Although both versions come from Hamilton's letters, it can be assumed that the letter to Eliza was bowdlerized since Eliza was very religious, while Hankins uses one of the letters to De Vere of 1855, when Hamilton was for the first time writing in all openness, unburdening about Catherine. Apparently often having adjusted his descriptions to the person to whom he was writing, or perhaps having chosen to write to the correspondent whom he expected to understand his feelings of the moment best, the truth will have been somewhere in between. But whichever version is the more realistic one, the "pilgrimage" seems to breathe the atmosphere of remembering a deceased loved one although Catherine was still alive in 1850; it was probably the only thing he could, socially speaking, do to somehow honour her.<sup>73</sup>

### Eliza's beautiful death

Next to the meeting of the British Association in Edinburgh not much else happened in 1850; Graves' description contains only a few pages. But on the 14<sup>th</sup> of May 1851 Eliza died. It was difficult for Hamilton, but he was very consoled by the fact that her death was beautiful; she died while he was, with Sydney, kneeling at her bedside. And just as Hamilton did with the story of the lady's dog, also about Eliza's death his descriptions vary, again apparently dependent on the person he was writing to. Graves writes: "The following extracts furnish some interesting particulars. To Lady Hamilton he wrote immediately after the event: – "As it was striking seven this evening Eliza almost literally fell asleep, without the least appearance of pain." To his friend Dr. S. O'Sullivan, on the 16th: – "My dear sister and your friend Eliza died on Wednesday evening last while our younger sister and myself were kneeling at her bedside. It was literally a falling asleep in Jesus, and the beautiful expression which her countenance immediately assumed, and retained up to the time of her being put in the coffin last night, reminded me of Byron's well-known lines on Greece (The Giaour), and Sydney of St. Paul's expression (referring, no doubt, directly to a future change) respecting "this mortal putting on immortality." To myself, on the 16th of June: – "... I have the comfort to think that I was in attendance at the last. Sydney and I were kneeling at her bedside at the very time of her departure, the moment of which we could perfectly fix, although it was as painless as could be conceived, literally a falling asleep, and as we fully believe in the Lord. She had said to Sydney that morning that she was very happy." And in 1855, not mentioned here by Graves, Hamilton wrote to Lady Dunraven: "My dear sister Eliza, the poetess, [...] died in my arms in May, 1851, having every comfort, spiritual and temporal, which it was possible to procure for her, and with that last poetic satisfaction of the evening sun

<sup>73</sup> [Hankins, 1980, p. 351]. If mentioning April instead of January was not Hankins' mistake but Hamilton's, in the 1855 letter to De Vere Hamilton thus really mixed up months as was discussed regarding Catherine's letter which he received in Parsonstown, see p. 284. But this time it is not too strange; he indeed visited Trim again in April 1850, [Graves, 1885, p. 650], and thus just mixed up two similar visits, while Catherine's letter was a one-time event.

shining beautifully and gloriously, as well as comfortingly, in for the few minutes which were her last.” According to Hankins as a remembrance, Hamilton “purchased and preserved the pillow on which she died.”

About the marriage during those years it may be remarked that from the very short description Hamilton wrote to his wife it can easily be inferred that he told her less than he told others. But it seems more likely that he wanted to talk about it with her in private; as mentioned earlier, he had a clear opinion about the difference between conversation and correspondence: “correspondence is restricted, conversation unreserved [. . .]. For many things which one would say by word of mouth, they would feel unwilling to record (as it were) on paper; to give things either trifling or secret the chance of being ridiculed or discovered.”<sup>74</sup> Indeed, Graves’ biography consisting of writings and Graves’ comments, no-one knows what the Hamiltons said to each other when at home. In the end, Lady Hamilton knew him best, and she will certainly have known how much consolation he would need in the time to come even though Eliza’s death had been beautiful.

### The continuation of daily life

Graves’ description of 1852 is again very short, the description of this year taking up only six pages. On the 29<sup>th</sup> of March Hamilton delivered a public speech in honour of the then “recently deceased” Irish poet Thomas Moore (1779-1852), and Graves writes: “Hamilton was called upon to take the place of Lord Cloncurry [(1773-1853)], who had been unexpectedly prevented from fulfilling the part assigned to him, and after not many minutes of preparation delivered a speech which seems worthy of being placed on permanent record, not only as a specimen of graceful eloquence, but on account of the sentiments it expressed. His tribute to Moore is cordial and appreciative, but from this he passes to the pleased contemplation of Irishmen combined for a common object; and then, full of the consciousness of long labour bestowed in the attainment and development of a scientific discovery, of the value and future recognition of which he is assured, he asserts, as giving him some title to speak, his brotherhood with Moore in the endeavour to win for Ireland, though by a sterner and less popular method, some addition to her intellectual heritage of fame.”

Hamilton, who was working very hard on the *Lectures*, sometimes for hours in the open air, had corresponded intensely with De Morgan but there had, apparently, been a hiatus in the correspondence since in the beginning of April he wrote to De Morgan about his speech: “I did so flood you with letters and papers for a while that I should not be surprised if you supposed me to be dead or ill. However, such is not the case. I made to my own surprise a speech on Monday last in honour of the poet Moore; and attended a private concert (with some “dear 500 friends”) at the Castle in the evening. It was chiefly sacred music, and was understood to be given for the sake of clergymen and others, who scruple (which I do not) the being present at a ball. To me, who am old enough to remember when Moore’s poetry was thought to have somewhat, or indeed a great deal, of a rebellious tone, it was striking and almost amusing to hear the final “God save the Queen” immediately preceded by a melody of Moore’s, which lamented that the emerald gem of the western world had been (*xyz* centuries ago) set in the crown of a stranger. But I had the honour of being

<sup>74</sup> [Graves, 1885, pp. 668-669], [Graves, 1889, p. 27], p. 393, [Hankins, 1980, p. 351], p. 191

invited, in the summer of 1849, to meet the Queen and Prince at Lord Clarendon's Viceregal Lodge in the Phoenix Park, near this place, and a brilliant meeting, for Dublin, it was, combining, as struck me at the time, the attractions of a musical soiree, a conversazione (sotto voce) [a conversation (in a lowered voice)], a court (for there were numerous presentations ...), and a supper; well, on that occasion, the chief enjoyment and the chief part of even the pomp, consisted in the singing and in the pianoforte performance of sundry melodies of Moore. So we have Her Majesty's permission to admire them; and, seriously, they are not in the least likely to produce any rebellion against her."<sup>75</sup>

In June 1852 Hamilton, obviously hoping to finish the *Lectures* soon, wrote to De Morgan: "I shall be happy to be allowed to present you with two or three copies (or perhaps more) of the book, when completed, for *undistinguished* scientific friends of yours, or pupils not yet known to fame. As to scientific men of celebrity, I need not say that I shall take it as a favour, and indeed a service, if you will assist me in making out (soon) a list of such as presentees. How far I can go in that way I am not yet certain; but am aiming to be liberal." In September he took William Edwin to the meeting of the British Association in Belfast, and they visited friends. Hamilton "afterwards visited alone Carlingford and Rostrevor. At the former place he was the guest of his friends Mr. and Mrs. Thomas Disney; at the latter, of its respected vicar, Mr. Evans [(ca 1790-1861)], Mrs. Disney's father, by whom, as a walking companion, he was conducted through some of the beautiful demesnes in that picturesque region. This was his holiday excursion for the year, which had been continuously occupied in preparing for the press his *Lectures on Quaternions*."

Hamilton seems to have been depressed before going to Belfast and Carlingford; he temporarily lost his interest in quaternions, but it is not known why, Graves does not comment on it. But it seems probable that, next to having worked very long and very hard on his book, his depression was related to the loss of Eliza; it had also taken him a long time to recover from losing Cousin Arthur. Hamilton wrote to De Morgan from Carlingford: "The morning before I left the Observatory for Belfast, some of my children asked me at breakfast, as they had often done before, how the Quaternions were getting on. To which my answer was, Hang the Quaternions! (I assure you I had so much propriety left as not to say D— them!) But now, after some pretty complete diversion of thought, for a while, from a subject which had occupied me, perhaps too much, I am beginning to feel an interest in it again; and to-day, before and after a sail of three or four hours on the lovely bay (of Carlingford) which, when I raise my head, I see, I quite enjoyed reading some of my own articles on definite integrals in quaternions, while walking in an old friend's garden here – the friend whose guest I am. Several other acquaintances, in Carlingford and Rostrevor, claim a little of my time on this occasion of my visiting this neighbourhood, and I do not now expect, though anxious to get home, to start as early as Monday."<sup>76</sup>

<sup>75</sup> [Graves, 1889, p. 623], [Graves, 1885, pp. 673-674], p. 295. In September 1853 he proudly wrote to De Morgan, but apparently also for certainty: "I had the honour of meeting the Queen and Prince at the Viceregal Lodge in 1849 – I do not mean of conversing with them: and she was pleased, soon afterwards, to command Colonel Phipps [(1801-1866)] to write to me, and to thank me for two sonnets which Lady Clarendon had the goodness to forward." [Graves, 1889, p. 461].

<sup>76</sup> [Graves, 1889, pp. 413-414]. Hamilton's anxiousness to get home after having been away for three weeks apparently indicates that his depression was not linked to his marriage.

In July 1853, during the Great Industrial Exhibition which was held in Dublin from May until October, Hamilton gave another speech, as Graves writes “at a meeting [...] to commemorate, by founding some endowment of an industrial character, the patriotic beneficence of William Dargan. Hamilton’s speech [...] in which he recalls his impressions at the opening of the Industrial Exhibition, for which Dublin was indebted to Dargan, has, I think, a special interest, as proving that a lively imagination still brightened for him the outer world, whenever he could allow it exercise beyond the bounds of mathematical thought.” In the speech Hamilton described how he saw the building for the first time: “May I be pardoned if I say a few words more respecting the feelings that were mine upon that day, which who that was present can ever forget! After that glorious music from the breathing organ, and a thousand voices, like some ascending cloud of incense, rose to heaven, and after the solemn ceremony – or shall I say service? – of that inauguration was over, I wandered through the courts, the halls, the galleries of the building, delighted but perplexed. Realities and representation appeared to blend, and, as it were, to inosculate with each other; and in that sweet confusion of the senses which the first unfolding of the scene produced, the lovely forms of marble, the figures on the canvas, at moments seemed indeed to breathe and live; while at other moments, and to other moods of my excited fancy, some actually living group, seen through the vistas of the building, appeared, if not a work of statuary, at least a tableau sketched by some skilful painter’s pencil. And although the illusion all passed away, the solemn truth remained. I saw that the committee, who had devoted so much care to all the other arrangements of the building, had decided judiciously (as I ventured to think) that the practical and useful character of the Exhibition did not exclude the charms of the ideal and the beautiful. ...”<sup>77</sup>

Hamilton thus clearly was not only focused on his sad emotions about Catherine or his guilt about his feelings for her; he was not even just buried in his work to try not to think about her. Graves was alluding to Hamilton’s working very hard at his *Lectures* when he wrote that “a lively imagination still brightened for him the outer world,” and regarding Hamilton’s feelings about Catherine it can be seen that also during these difficult years he could be “delighted and perplexed.”

## 8.4 Death of an “old friend”

“Early in November [1853] died the lady who had been the object of his first serious passion. She had been staying in the house of a brother near Dublin, and Hamilton, hearing of her dangerous illness, had called to inquire after her. He was invited to renew his call on another day, and then this friend of his youth, from whom events and duties had parted him for nearly thirty years, aware of her approaching end, felt herself free to permit a parting interview, at which the two friends, who under other circumstances might have been more than friends to each other, could at last blamelessly exchange assurances of the feelings of mutual esteem and regard which had remained unchanged during the long period of severance, and of which only the highest elements could in the near presence of death find admission to the thoughts of either. Such an interview took place twice. To the departing Christian it brought a sense of

<sup>77</sup> [Graves, 1885, pp. 676-677], p. 216

justice done by due explanation, and the consciousness that the remembrance of her parting words would strengthen the spiritual aspirations and endeavours of her friend; and to Hamilton it imparted a melancholy satisfaction, assuring him that his early devotion had been recognised as no unworthy tribute by her to whom it had been paid, and consecrating her memory by a light shed upon it from the region of eternity. The agitation caused to him by the event did not soon pass away, but letters to Professor De Morgan on mathematical subjects, to the Archbishop of Dublin respecting the Society for the Propagation of the Gospel (of a parochial branch of which Hamilton was President), correspondence respecting Lord Lytton's Guild of Literature (of which he was asked to be Trustee, and became a member of the Council), and other various documents in my hands prove him to have been at the end of this year unremitting in scientific work and in the performance of social duties."<sup>78</sup>

This is Graves' account of the events around Catherine's death, and herewith concluding the second volume of his biography, on the last two pages he gives account of Hamilton's indifference to contemporary fame and Hamilton's growing fame at the time this volume was written. But although Graves tries hard to minimize the depth of the emotions of this period, he does allow for indications as to how very difficult it was for Hamilton, for instance by giving, in the third volume, a letter to De Morgan, written on the 31<sup>st</sup> of October 1853, only a few days before Catherine died.

Since the end of September Hamilton had not answered any of De Morgan's letters who then wondered whether he was ill. Hamilton reacted: "I have not been ill, but the illness of a friend very long beloved by me [...] has so much affected my spirits during the whole of this now expiring month, that I have scarcely been able to attend to anything like business, and have left several letters unanswered, including even some from ladies – one of whom, with the professed object of inducing me to repay her in kind, has sent me a manuscript poem of her own, with some additional verses to myself! – nor have I felt up to making even one visit this month to the now closing Exhibition in Dublin, to which I had gone innumerable times, before my late excursion to Yorkshire and the North of Ireland."

Graves does not comment on the letter, but according to Hankins that October, just after having returned from the annual meeting of the British Association in Hull and subsequent visits, Hamilton had received a package from Catherine, containing a pencil case and an inscription: "From one whom you must never forget, nor think unkindly of, and who would have died more contented if we had once more met."<sup>79</sup>

## Two "parting interviews"

Hamilton immediately decided to visit Catherine, who was at her brother Robert's house in Donnybrook. The first time he did not see her, but he was invited to return for dinner, and then they met. Hankins gives a part of Hamilton's description; he saw

<sup>78</sup> [Graves, 1885, pp. 691-692]. Edward Bulwer-Lytton (1803-1873) founded the Guild of Literature and Art together with Charles Dickens (1812-1870). Lord Lytton was a water-cure enthusiast, see Marland, H., Adams, J. (2009), *Hydropathy at Home: The Water Cure and Domestic Healing in Mid-Nineteenth-Century Britain*. *Bulletin of the History of Medicine*, 83 (3): 499-529.

<sup>79</sup> [Graves, 1889, p. 465], [Hankins, 1980, p. 351]. Hamilton wrote that in a letter to Samuel Talbot Hassell (1797-1882) in December 1853. Hamilton had written to De Morgan from Carlingford on the 28<sup>th</sup> of September, he thus received the pencil case early in October. When writing the letter to De Morgan on the 31<sup>st</sup> of October, he will have had the two "parting interviews" already.



her “quite alone, by the firelight, before being summoned to join the family dinner,<sup>80</sup> which she was totally unable to attend; and while she lay, languid and strengthless, but interested and attentive and happy on a sofa to which she had been carried that she might meet me: – kneeling, I offered to her the Book [*Lectures on Quaternions*] which represented the scientific labours of my life. Rising, I received, or took, as my reward, all that she could lawfully give – a kiss, nay many kisses: – for the known and near approach of death made such communion holy. It could not be, indeed, without agitation on both sides, that for the first time in our lives, our lips then met. ... Yet dare I to affirm that our affectionate transport, in those few permitted moments, was pure as that of those who in the resurrection neither marry nor are given in marriage, but are as the Angels of God in Heaven.”

According to Hankins, Catherine “was dying without any firm religious belief, which filled Hamilton with horror. He hoped that somehow his love might take the place in her mind of the love of God.” On the 25<sup>th</sup> of October Hamilton wrote about these feelings to Robert Disney: “If human affection can thus have a sort of earthly immortality, she ought not to doubt the constancy of that Divine Friend, in whose love she certainly did once believe, who knows and feels for all our weaknesses and infirmities and who, in his more than earthly love, sticketh closer than a brother.”<sup>81</sup> Apparently also in that letter Hamilton asked for a second interview with Catherine, which was granted.

Apart from the aforementioned quote Hankins does not further describe what was said during the interviews, but Graves’ remark that to Catherine “it brought a sense of justice done by due explanation” makes it very plausible that it was during these interviews that she finally could tell him that in 1830 she had asked to be allowed to write to him, that she had wanted to keep his friendship, and that she had wanted to let him know that she had not been responsible for his rejection in 1825. And, most likely, she then also told him that she had been married against her will, and that she had also loved him.<sup>82</sup> Knowing that he lost her to an unhappy marriage had been difficult already, but this must have been extremely hard.

Hamilton was clearly very upset about Catherine’s forced marriage; according to Hankins “Hamilton said” in one of the letters to De Vere of 1855 that “Catherine pleaded desperately against the marriage, [...] but her father had an “iron will” and Barlow was too proud to let his prize be taken by a “mere boy”.” He then quotes Hamilton who sounds not only upset but certainly also very angry, “That boy, her lover, had not heard that his love was returned, but had heard that she was engaged, from her mother, whose anguish of manner, whether arising from compassion for me, whose love she no doubt divined, or through pity for her daughter, at the moment of speaking those words, which nearly killed me at the time, and have coloured my whole subsequent life, I never can forget.” Hankins concludes: “Catherine’s relatives told her it would be a sin to break the marriage agreement. The family’s honor was mentioned and she was “led as a victim to the altar.””<sup>83</sup>

<sup>80</sup> It is difficult to conceive how Hamilton must have sat at the dinner table with the family, even when they were also his friends, while knowing that she was in the same house, but out of sight.

<sup>81</sup> [Hankins, 1980, pp. 351-352], [Hankins, 1980, p. 450 note 21]

<sup>82</sup> See p. 269. The fact that Graves, being cautious throughout the biography, dared to write that “under other circumstances [they] might have been more than friends to each other,” [Graves, 1885, pp. 691-692], can be taken as a sign that he was certain that Catherine had also loved Hamilton.

<sup>83</sup> [Hankins, 1980, p. 39]



### Difficult months and many letters

In the first week of November Hamilton received a letter from Robert Disney, informing him that Catherine had died. Hamilton went to the house and was given, also by Robert as he wrote in a memorandum for himself, the “manuscript book on the Neville and Sydney correspondence, which had been found in my dear departed Catherine’s possession, and as I believe, in her bed. Mr. Barlow and perhaps other Barlows were in the house, and I was not invited in, nor did I wish to be so. I saw the upper right hand shutters open but the light was soon afterwards concealed.”<sup>84</sup>

While at the beginning of the third volume of the biography, which starts in 1854, Graves writes that Hamilton “had passed through a period disturbed by much care and emotion,” according to Hankins in the months following Catherine’s death Hamilton wrote about her to any sympathetic listener who would be discrete. Graves of course does not give such letters, but he does give again a letter to De Morgan, written on the 15<sup>th</sup> of December, in which Hamilton, apparently concealed enough for Graves, referred to his mental turmoil while obviously trying to keep up the normal course of daily life. In the letter Hamilton described for instance how Archibald was doing telegraphic experiments, stretching a wire of about a hundred yards across the lawn, as a preparation to galvanically connect the Observatory with that of Greenwich. “He (my son) has succeeded in connecting our transit and dome clocks, and is just going to show me the experiment. Tho’, by the way, some sacrilegious person has lately stolen a brass tube, which had been his positive pole! and was left outside the house. The rest of the battery was, curiously, untouched.” Hamilton had made the referral in the first part of the letter where he had written: “I wished merely to divert my mind in every possible way, though I have grown interested again in quaternions and such things.”<sup>85</sup>

And although Hankins only briefly quotes from the many letters Hamilton wrote after Catherine’s death, he does give information about them: “De Morgan was the first outside of the Disney family to hear the story. De Morgan accepted the confidence sympathetically, and apparently told Hamilton of similar griefs of his own. For two months Hamilton concluded his letters with the explanation that he could not abstain from writing about the subject for at least a little while longer. [...] He said [in a letter to De Morgan written on the 11<sup>th</sup> of December] that he himself did not plan to become a Catholic as his friends [De Vere and Adare] had done, but added: “I feel just now the strongest possible inclination to pray not for, but to the deceased lady of my love: and “Sancta Catharina, ora pro me [Holy Catherine, pray for me]” is a saying that trembles on my lips.””<sup>86</sup>

Lady Campbell “was another obvious correspondent, since only she and the Disneys knew the identity of his love,” but Thomas and Dora Disney received “the greatest burden of correspondence;” Hamilton sometimes wrote more than one letter in a single day to the same person. Hamilton’s feelings towards Catherine’s husband were becoming irrational, according to Hankins partly from hatred, and partly from fear of being exposed. “He believed that Barlow had found some of his poems and possibly some of his letters that might prove incriminating among Catherine’s things.

<sup>84</sup> [Hankins, 1980, p. 352], [Hankins, 1980, p. 450 note 22]

<sup>85</sup> [Graves, 1889, p. 468], [Graves, 1889, p. 1], [Hankins, 1980, p. 353]

<sup>86</sup> [Hankins, 1980, p. 353]. Adare had converted to the Roman Catholic Church most likely in 1850, thus shortly before De Vere.

In Hamilton's mind Barlow was a criminal for having forced Catherine into marriage, and [in January 1854] he threatened Thomas Disney that "at the expense of one minute, and one penny, I can explain [...] who was the old destroyer of her peace and mine – but I have no wish to do so, and shall never do it, except under the highest and most wanton provocation." And Hamilton was of the opinion that Barlow had "actually preached her into madness, and very nearly into suicide."

The Disneys then began to fear a public confrontation but Barlow seems to have avoided Hamilton; "on one occasion [he] was hiding behind a door, in his son's rooms in ... Trinity College Dublin during a short interview of mine with that son; ... he wanted to listen to our conversation, but ... was afraid to meet me face-to-face." Hankins comments: "And yet Barlow was not cowardly about most things," and mentions that in November 1855 Hamilton wrote in a letter to Nichol that Barlow "had been active during the famine and had been absolutely fearless regarding assassination," to which Hankins adds: "or so Hamilton had been led to understand."<sup>87</sup>

Hamilton's reaction thus being far more extreme than the reaction in 1848 again underpins the idea that he only learned of Catherine's forced marriage during the "parting interviews". And in 1855, when Hamilton wrote to De Vere about having charged Catherine with his compliments to her husband in his first letter to her in 1848, he added that he did not have the heart to blame her for not having done that, "knowing more now than I then did," which also seems to imply that he did not already know that in 1848. During his interviews with Catherine he thus will finally have realized that he had lost a marriage which was desired by both of them, and which in his eyes would have been almost heavenly.<sup>88</sup> His hatred towards Barlow, whom he remembered as someone "whose presence or absence seemed then [in 1824-1825] to me a matter of supreme indifference" is, again, very easy to understand.

But when Hamilton's remarks about Barlow further increased in violence, "the Disneys intervened and extracted a promise from Hamilton that he would not write to Barlow unless Barlow wrote a "reproachful" letter to him first." Hamilton apparently made such a promise in a letter to Thomas Disney early in February 1854, and Hankins adds that "in more rational moments Hamilton admitted that Barlow had been completely respectful in most ways;" Hamilton had written, most likely to Nichol Sr., that Catherine "had a handsome carriage (which Lady Hamilton never had), and was allowed to receive members of her own family as often (apparently) as she could wish. What I really can in my thoughts thank him for, is that he allowed her, especially for the last few years of her life, to reside very much away from him, making long visits to her mother, or to brothers and sisters of hers who all adored her: ... I do not imagine that he was ever rude to her but she confided to me, almost on her death bed, that she looked forward with terror to the bare possibility of her recovering health enough to make it necessary for her to live with him again."

According to Graves Hamilton's work did not suffer from his struggle with Catherine's death, but still, according to Hankins in December 1853 Hamilton saw that the subject had continued to agitate him "to a degree beyond which is rational." He missed a meeting because "he was unshaven and could not go." Yet, also during that December month Hamilton wrote to De Morgan about being "apt to estimate the

<sup>87</sup> [Hankins, 1980, pp. 353-354]. "Nichol" will have been Nichol Sr., see p. 313.

<sup>88</sup> Which does not say anything about his real marriage; daily life can simply not compete with dreams of perfection. And he indeed never even showed even a glimpse of expecting that.

happiness of any friend of mine by the instance of his or her having a daughter” and, probably in the same letter but Graves does not give a day, he wrote that his sad poem ‘The Enthusiast’ did not fairly describe, or anticipated, his subsequent life.<sup>89</sup>

## 8.5 Recovery

In any case until the spring of 1854 Hamilton’s anguish seems to have been coming and going, and during these months he also corresponded with Lady Campbell. Graves remarks how Hamilton could always confide in her, but he does not publish letters Hamilton wrote to her during that period in full since “it would not be right to give [them] to the public.” He does give some excerpts though in which, remarkably, Hamilton did not avoid mentioning his wife; just as he mentioned her when writing to Nichol Sr., also in this correspondence he did that, from which it can again be seen how he seems to have been able to see his marriage apart from this turmoil, he does not seem to have wavered about his marriage at all.

Having bought Lady Campbell’s just published book *The Cabin by the Wayside*, Hamilton wrote on the 17<sup>th</sup> of May 1854: “So while you were seeking to draw me out, on May-day last, to talk too much about what you were pleased to call my “wonderful” book, you did not give me the least hint that there was a chance of my so soon seeing your “charming” one ... Now I won’t begin to praise you even as an author, and can’t say that I find that anyone here is disposed to wonder at your producing a delightful book. But I may mention or confess that, living so much out of the world as I do, it was not till yesterday that I heard of the publication of your *Cabin by the Wayside*, and forthwith pounced upon it at M’Glashan’s.

“But your book fairly carried the day, or the evening, as I was walking back along the Canal yesterday, after having walked to Dublin some hours earlier by the same path. A couple of milestones gave me very pleasant opportunities for sitting down to read more comfortably, and when I got home I was so selfish as to finish the book quite alone. But this morning I showed it to Lady Hamilton. ... At all events she never stopped till she had read aloud the whole to my little daughter, and to a son, who pretended to be reading Homer. I have put my daughter’s name in the copy.”

“May 18th. – Unquestionably I shall accept with pleasure, not to say with pride, the copy which you promised me of *The Story of an Apple*; and what’s more, that I may have the pleasure of reading it first, as a gift from you, I shall abstain from ordering the book. My son Archy has confessed that he was listening while his mother was reading your book aloud.”<sup>90</sup>

<sup>89</sup> [Hankins, 1980, p. 450 note 37], [Hankins, 1980, p. 354], [Graves, 1885, p. 692], [Hankins, 1980, p. 353], p. 215, p. 64. However difficult this time must have been for Hamilton, not shaving was less exceptional than it may seem; in 1832 Hamilton had indeed grown his beard during a period of melancholy, see p. 107, but he sometimes also did not shave when he was working like a “hermit”; in 1837 he wrote to the Marquess of Northampton: “It is certainly a great pleasure connected with the Meetings of the British Association, at least to lonely and long-bearded hermits like myself, that it brings together every year persons who value each other when they meet, though they might otherwise have been long without meeting.” [Graves, 1885, p. 209].

<sup>90</sup> [Graves, 1889, pp. 17-18]. Lady Campbell wrote several books, including the two children’s books mentioned by Hamilton, published in 1854 and 1853, respectively, by George Routledge and Co., London. *The Story of an Apple* can be read or downloaded at <https://books.google.com/books?id=j8FCAQAAMAAJ>. *The Cabin by the Wayside* having 184 pages the reading aloud must have taken some time, yet it was a favourite pastime then; when the Hamiltons visited Lord Northampton

The last excerpt was written in June and reads: "It was Jellett's turn, as one of the Examiners for Bishop Law's Mathematical Premiums, to give the annual dinner. I sat between him and Mr. Walsh, a clever barrister, and remarked to the latter that this was the 28th time of my assisting at an Examination Dinner of this particular kind. "What a frightful retrospect!" exclaimed he. "Do you mean the dinners?" I asked him. "No," said he, "but the years." I let the conversation on that subject drop; but cannot altogether regret that I have lived so long, though I have had impatient fits. Or rather, in my serious moods, I feel it to be a subject of deep thankfulness that so much time has been allowed for schooling – a process which as yet has been very imperfectly performed in my own case ... if I find and transcribe them [Graves remarks: some notes written at the commencement of the preceding year], you will see that, when thoughtfully considering the question, I have heretofore recognised, as I still do recognise, a *kindness* in life being spared."

It is not exactly clear how long Hamilton continued to write letters about Catherine, but it must have stopped sometime in 1854. Hankins does not give later references to such letters, and reading this last excerpt, written in June, Hamilton seems to have been calmed; not having to pretend to her this can be taken serious. As mentioned earlier, about the summer of 1854 Graves mentions that a "cheer was given to Hamilton's spirits" by the conferral of the living of Loughcrew to his cousin James Alexander and by the paying by the Board of Trinity College of the expenses for the printing of the *Lectures*; from his travels that summer with Archibald stems the joke Hamilton made about his wife having been called an abstract idea; and when they were in Windermere he wrote the "playful letter" to Lady Campbell.

And in September 1854 Hamilton wrote in a letter to Thomas Disney, after trying a difficult metre in a poem called the 'Dargle Verses'; "You know that I have never hoped to win any reward from poetry, beyond an occasionally elevating relaxation from pursuits of a different kind, and an assistance towards preserving for myself, and sometimes communicating to friends, a few records of the pleasurable or painful feelings of what has been, upon the whole, a studious and happy life."<sup>91</sup>

The fact that he wrote that to Thomas Disney, who had given Hamilton information about Catherine and who was one of the main receivers of Hamilton's letters about her, is perhaps the clearest indication that even during these very difficult months Hamilton did not think he just had an unhappy life; he apparently accepted his "pleasurable" and "painful" feelings as evenly important parts of it.

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in 1838, Graves mentioned that "reading aloud had an honoured place," see p. 198. Also, describing in his *Recollections* the early 1830s, De Vere writes after having written that he read Wordsworth's 'Laodamia' standing, see p. 42, "a present from an unknown donor was made to my sister, a copy of "The Beauties of Shelley", with her initials, E. de V., glittering on its green morocco cover. She read aloud the "Ode to the West Wind", and a few evenings later, by the last light of a summer evening, his "Adonais"." [De Vere, 1897, p. 60]. Shelley, P.B. (1830), *The Beauties of Percy Bysshe Shelley, consisting of Miscellaneous Selections from his Poetical Works*. London: Stephen Hunt. <https://archive.org/details/beautiesofpercyb00sheluoft>. Also Hamilton's poems were often read aloud by their recipients; in January 1843 De Vere wrote: "I have to present you with very warm and sincere thanks from my father and mother for your kind remembrance of them. They have taken possession respectively of the sonnets which fell to their share, and I can assure you that after reading them aloud we pronounced a very favourable verdict on them. Both of them seem to me very beautiful: the one addressed to Lady Hamilton, however, we all agreed in giving the preference to." [Graves, 1885, p. 402]. Unfortunately, it is not clear which poem De Vere alluded to.

<sup>91</sup> [Graves, 1889, pp. 17-19], pp. 218-220, p. 213. Mr. Walsh was most likely John Edward Walsh (1816-1869), son of the Finglas vicar Robert Walsh, see p. 28.

## Hamilton and De Vere

Although Hamilton and De Vere had been growing apart in religious views after De Vere's conversion to the Roman Catholic Church in 1851, their friendship was too strong to end there; in a letter written on his fiftieth birthday, the 4<sup>th</sup> of August 1855, Hamilton wrote: "As to our religious views, you rightly judge that we differ more than we once did. Even if you had stood still, which was (as I suppose) impossible, at the point of Catholicism which you occupied when we used to have the most frequent opportunities of conversing freely on such subjects, and when there was, I think, very little difference of opinion, if any, between us, yet I have not stood still. Yours has been, as I most fully admit, and feel, with respect to yourself, a vital progress, a real psychological development; you are now more consistent with your own instincts, and so far subjectively truer. On the other hand, if you knew my mental history, you would be apt to say, or if too polite to say it, you would think that I have been retrograding, for at least ten years, since about the time of Mr. Montgomery's change of profession. The question of progress or retrogression, as regards myself, I do not choose to discuss: but the (mentally) historical fact, expressed in words which we may both adopt, is that while you have been becoming, or considering yourself to become, more Catholic, and certainly more Roman, I have been growing gradually more Protestant, and (as you are welcome to call it) more Anglican, than I once had been.

"We are therefore, with whatever regret it may be admitted on both sides, by a twofold motion, less in harmony now with each other than we were in former years, on the subject of our religious feelings, impressions, and convictions – that is to say, on the most important subjects in the world – and I see no probability of this state of things being changed. I suppose that in saying all this I hardly give you any information – none certainly for which your letters alone would not show me that you were already abundantly prepared.<sup>92</sup>

"If then it be painfully evident to both, that under such circumstances there cannot (whatever we may both desire) be now, in the nature of things, or of minds, the same degree of intimacy between us as of old; since we could no longer talk with the same degree of unreserve on every subject which happened to present itself, but must, from the simplest instincts of courtesy, be each on his guard not to say what might be offensive, or at least painful to the other: yet we were once so intimate, and retain still, and, as I trust, shall always retain, so much of regard and esteem and appreciation for each other, made tender by so many associations of my early youth and your boyhood, which can never be forgotten by either of us, that (as times go) two or three very respectable friendships might easily be carved out from the fragments of our former and ever-to-be-remembered intimacy! It would be no exaggeration to quote the words "Heu quanto minus est cum reliquis versari, quam tui meminisse! [Alas! How much less precious it is to live with those who remain than to remember you.]"<sup>93</sup>

<sup>92</sup> [De Vere, 1897, p. 307]. Reverend George Montgomery (1818-1871), once Hamilton's local confidant in religious matters, converted in 1845. Hamilton had found that very difficult, see p. 406.

<sup>93</sup> [Graves, 1889, pp. 31-33]. The quote is from William Shenstone: Dodsley, R. (ed) (1768), *The Works, in Verse and Prose, of William Shenstone, Esq.* Third Edition, Volume II. London: Printed for J. Dodsley. <https://archive.org/details/worksinversepros02shen>. On pp. 306-307 it can be read that a path called "the Lover's Walk, is terminated with an ornamented (N<sup>o</sup> 28) urn, inscribed to

Hamilton indeed never doubted his friendship with De Vere; on the 10<sup>th</sup> of October 1855 he wrote to his then new friend Nichol Jr.: “When you know me better, you will be aware that I am an abominably bad correspondent, except now and then by fits and starts. To Aubrey de Vere I had not written for several years; but, within two or three recent months, he and I have exchanged letters, which would make (in size) a respectable little volume, though they were (and are) in no way designed for publication, and indeed were in many respects confidential; for we wrote much to each other about the days of long ago, being at least twenty-five years acquainted, and having, from some circumstances of my history, become intimate almost immediately ... You and he are pretty nearly antipodes of each other, in many important respects, yet I can most sincerely sympathise with each of you – each being earnest and sincere, and also cultivated and poetical.”<sup>94</sup>

In January 1856 Hamilton wrote to De Vere, and this may be an example of the extreme honesty which De Morgan had alluded to in his obituary notice: “You know that I am not a flatterer; but I must say that I regard your character as nobler than my own. I might easily expand upon this topic, which the slight praise given to you publicly of late has so little suggested, that it seems to me painfully inadequate. But with the same sincerity I must say, that the modern Roman system appears to me so corrupt that the inevitable tendency of any other system, such as Puseyism, to it is, with me, a “*reductio ad absurdum*”.”<sup>95</sup>

Yet, generally they were very careful with and friendly to each other; reacting on this letter De Vere, who had visited Scotland, gave his view on Scotsmen and continued: “I should like to know why I am writing you a disquisition on Scotchmen. I suppose it is because I intended to say a few words on theology, in answer to your remark on a tendency to modern Romanism being a “*reductio ad absurdum*”, just as once before I wrote a theological letter to you when I meant to write one about literature and poetry.” He then wrote fourteen closely-written pages which are mentioned but not given by Graves, defending his Church and his beliefs, and Graves comments: “It could not reasonably be expected that Hamilton, with such work on his hands as the writing of his *Elements of Quaternions*,<sup>96</sup> and with his thoughts absorbed in it, could find time or freedom of mind sufficient to enable him to grapple with so accomplished and earnest a controversialist as his friend. In his reply, accordingly, he is content with intimating that his previous convictions remained unshaken, while candidly admitting the fact that he was conscious of having his share of bias and prepossession.” Graves does not give this letter in full, just the part where Hamilton then humorously added: “[I] am not offended by your remarks on Theology – though not at all afraid of

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Miss Dolman, a beautiful and amiable relation of Mr. Shenstone’s, who died of the small-pox, about twenty-one years of age.” On one of the sides the epitaph is written. The translation given in the text is from Stephanie Jenkins from St. Sepulchre’s Cemetery, Oxford, United Kingdom, where the epitaph was used for the grave of Mrs. Letitia Maria Stock, née Foot (1851-1880). [www.stsepulchres.org.uk/burials/stock\\_letitia.html](http://www.stsepulchres.org.uk/burials/stock_letitia.html) [Accessed 25 May 2015].

<sup>94</sup> [Graves, 1889, pp. 43-44]. The letter was also mentioned in footnote 57 on p. 290 and on p. 292.

<sup>95</sup> [Graves, 1889, p. 58]. See for De Morgan’s obituary notice p. 44. According to Graves, De Vere had published ‘Essays, mostly Theological’, which will allude to: Vere, A. de (1854), *Heroines Of Charity : Containing The Sisters of Vincennes, Jean Biscot, Mdlle. Le Gras, Madame De Miramion, Mrs. Seton, The Little Sisters of the Poor, etc. etc. With a Preface*. London: Burns and Lambert. <https://archive.org/details/HeroinesOfCharity>.

<sup>96</sup> Graves seems to be mistaken here, the writing of the *Elements* apparently started in the latter half of 1858, see p. 235.



your succeeding in con- or per-verting me. In my *Lectures on Quaternions* there occur all sorts of “Versions”; such as Reversions, Proversions, and Transversions, with reference to rotations in geometry; but one of them is a Non-version! Even mathematics, you see, may supply a joke sometimes – such as Pope somewhere says, does he not? that “gentle dulness loves.””<sup>97</sup>

In July 1857 Hamilton wrote to De Vere: “We have not written to each other for a long time – at least a year; but you have often said what I always recognised to be the truth, that you and I, on every occasion of fresh writing, went on precisely as if there had been no gap in our correspondence. In fact my love to you has never been for a moment impaired – nor my respect; although I am farther than ever from participating in your Homeward movement. [...] I can see that, while you were (in heart – and I do not mean in disguise) a Catholic aiming to be a Protestant, because your father was so, I was throughout essentially a Protestant, though with many Catholic sympathies. I request you to believe that I do not belong to the class of irreverent scoffers at Popery.”

And to Mrs. Wilde he wrote in 1858 that “in general, I care very little whether an acquaintance of mine is of this or that religion; and, in the present case, I retain a very deep affection for the individual author and friend of whom I have been writing.” Hamilton was indeed alluding to De Vere, “my old and dear (I regret that I am obliged to add my Popish) friend, Aubrey De Vere, the poet and prosewriter, with some of whose principal works in prose you are already acquainted.”

But he did sometimes think that De Vere got carried away in his admiration for the Virgin Mary; ten days later, after the ‘Feast of the Poets’, Hamilton wrote to Mrs. Wilde: “He talked with or to me, for about two hours, during our walk to and near Abbotstown, a little before our last visit, continuously; no beauty of Nature seemed able to win him, for even a moment, from his intense contemplation of what he regards as the “Glories of Mary”; and I confess that I parted from him with a feeling of fatigue\*, though also with a sense of admiration, for a high and unselfish – which yet I must judge to be a mistaken – aim. But I do not forget the conversation [...] in which I expressed an admiration of Aubrey, as being a “Knight of the Virgin.” \*Will you quote against me the lines of Milton (Book VIII.) – “He ended, or I heard no more, for now My earthly by his heavenly overpower’d, Which it had long stood under, strain’d to the height, In that celestial colloquy sublime, ... ”?”

Hamilton wrote his last letter to De Vere on the 3<sup>rd</sup> of April 1863, on Good Friday: “My dear Aubrey – You may not think this day a good one for writing a letter even to an old friend; but I have just been reading again your ‘Hymn for Good Friday’, both in the edition of 1842, and in the poems published in 1855. Allow me to say, in passing, that if there be a word or two, in the latter edition, which you could not expect me to adopt, I yet admit that on the whole you have made it a finer poem. It may be more important to remark that I humbly conceive myself to be as much a Catholic as you were, when you wrote the hymn in its first form. [...] I remain, my dear Aubrey, your old and affectionate friend.”<sup>98</sup>

<sup>97</sup> [Graves, 1889, p. 59], [Graves, 1889, p. 61]. “And gentle *Dulness* ever loves a Joke.” Pope, A. (1728), *The Dunciad. An Heroic Poem. In Three Books*. London: Printed for G. Faulkner, J. Hoey, J. Leathley, E. Hamilton, P. Crampton, and T. Benson. The 1728 edition: <https://archive.org/details/dunciadinthreeb00popegoog>. The 1729 extended edition: <https://archive.org/details/dunciadwithnotes00pope>. The 1742 *Book the Fourth*: <https://archive.org/details/newdunciadasitwa00pope>.

<sup>98</sup> [Graves, 1889, pp. 80-81], [Graves, 1889, pp. 99-100], [Graves, 1889, p. 155]. The quote is from



### 8.5.1 Unburdening a heart

Their differing in religious views also did not stop Hamilton from writing to De Vere about Catherine; according to Hankins Hamilton sent him extracts of the “Neville and Sydney correspondence”, and wrote to him “the most detailed account of all.” In this essay this series of letters is called ‘letters to De Vere of 1855’; the letters were written in the second half of 1855, between July and October. Hankins quotes from six of the letters, and Graves from four letters, of which one letter overlaps, leading to a total of nine of which parts are given. The correspondence must have consisted of quite a few letters though; Hamilton had written to Nichol Jr. that they would have made “a respectable little volume.” While Hankins very briefly quotes from, and further summarizes the letters he refers to, Graves does not summarize, but also the few extracts he gives are mainly brief, taking into consideration that the letters were probably not only numerous, but also long. Not commenting much on the other letters, Graves gives a part of the letter Hamilton wrote on his fiftieth birthday, the 4<sup>th</sup> of August; a part from a letter about poetry written on the 3<sup>rd</sup> of September; a part from the letter, written on the 10<sup>th</sup> of September, in which Hamilton described his feelings for the three women in his life as those of a lover, a brother and a husband; and he gives a small part from a letter written on the 19<sup>th</sup> of October 1855: “I found that it at times agitated me to a degree which was imprudent for health, of body and of mind, to write as I was doing before I went to Glasgow, on subjects that are still so very vividly remembered. My visit [to the meeting of the British Association] was an useful diversion of my thoughts.”<sup>99</sup>

The quotes from the 1855 correspondence given by Hankins are, in this essay, mentioned at various places. From these letters it is known that in July 1848 Hamilton had “charged” Catherine with his compliments to her husband; that he “swore” while walking through the grounds of Parsonstown; that he could not go and see Catherine after receiving her “last rational letter” in Parsonstown due to the possibility that the results would not be as innocent as his purpose; that Catherine was led “as a victim to the altar;” and that he kissed her at their first “parting interview”. Also from these letters comes the romantic version of the 1850 story of the lady’s dog, and that he kissed, in 1854, Dora Wordsworth’s gravestone.<sup>100</sup>

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Milton, *Paradise Lost*. It can be found on pp. 204-205 of Vaughan, R. (ed.) (1804), *Milton’s Paradise Lost*. New York, London, and Paris: Cassell, Petter, Galpin & Co. <https://archive.org/details/miltsparadiselos00miltuoft>. A 1796 edition of *Milton’s Paradise Regained*, London: Printed by T. Bensley, can be found at <https://archive.org/details/miltonsparadiser00miltiala>. The two editions of De Vere’s ‘Hymn for Good Friday’ can be found in Vere, A. de (1842), *The Waldenses, or the Fall of Rora: a lyrical sketch. With other Poems*. Oxford: John Henry Parker, <https://archive.org/details/wrfallo00deve>, and in Vere, A. de (1855), *Poems*. London: Burns & Lambert, <https://archive.org/details/tails/devepoems00deverich>. The *Waldenses* is dedicated to Hamilton: “To The Astronomer Royal for Ireland, Sir William Rowan Hamilton. My dear Sir William, I am acquainted with no one who will condemn the many defects of this Book more gently than yourself: no one who will find out its merits, if it has any, with a more friendly penetration. Permit me then to connect the following Poems with your name. Many of them are on subjects often discussed by us of old. To those conversations I owe much on many accounts: but I value them chiefly as associated with a friendship which will endure when this Book has been forgotten, both by you and your very affectionate and faithful friend, Aubrey de Vere. July 29th, 1842.”

<sup>99</sup> [Hankins, 1980, p. 355], [Graves, 1889, pp. 31-39]. The 1855 meeting of the British Association was held in Glasgow, from the 12<sup>th</sup> to the 19<sup>th</sup> of September.

<sup>100</sup> See p. 298. Hamilton also mentioned kissing Dora Wordsworth’s grave in an 1855 letter to Lady Dunraven. [Graves, 1889, p. 28].

The ‘birthday letter’, of which the part about Hamilton’s and De Vere’s friendship was quoted above, was written after Hamilton had received a message from Ellen de Vere. He had continued the letter: “I have been very much gratified, indeed, by the kind message which I have received through you this morning, from one of the two ladies whom I have loved the best in the world and of whom it is a deep satisfaction to me to know, that one is happily dead, and the other happily living – namely, the objects of my very early, and of my later, but still youthful poems.

“That I should have seen the one before her death, and have heard to-day through you, at least by a message, from the other, is a matter of quiet joy, and indeed of thankfulness. It seems to say to me: – “Your past life is rounded off; you have lived for half a century, and the last day of it has been made happy by a recognition from one whom you had so very long and so very well remembered. Let that suffice for the past, and try whether you cannot, for the future, not indeed exert yourself more vigorously (that were unreasonable and hopeless to expect), but at least work more calmly, suffering all agitations about former times on earth to be absorbed in thought of the future eternity.” Decidedly I feel it as a close to an era, although a very consoling close to me, that on a day which to my own imagination, or perhaps fancy (for I am accustomed to have associations with, and to receive impressions from, days that seem to me remarkable), presents itself so much as one of transition, as that of my reaching the age of fifty, at the same time that my second son, Archibald, attains exactly that of twenty years old, I should receive through you a kind message of thanks from your sister, from whom I had not heard in any way for so very long a time – in fact, since 1831.”<sup>101</sup>

### Incidents of the past

Also through these letters Hamilton seems to have been suffering in recurrent bouts, and although Graves does not comment much on that, he does mention Hamilton’s correspondence with the Nichol family in the autumn of 1855 while sounding again a bit tired of it all: “The correspondence [...] was frequent and animated; but as on Hamilton’s side it was mostly occupied with the incidents of the past, a region which the reader has already traversed, I refrain from quoting it, except in brief extract.”<sup>102</sup> He then mentions, in a footnote, “It was about this time that John Nichol, Jun., addressed to Hamilton two sonnets, which tended to cement the friendship between them. These Sonnets dwelt upon the combination in Hamilton of simplicity and affection with high scientific qualities; but some imperfections of expression rendered their author dissatisfied with them, and he afterwards condensed their meaning into a single sonnet, which has appeared in the collection of poems recently published by him.” The sonnet is called ‘W. Rowan Hamilton’ and reads:<sup>103</sup>

I’ve known men famed in science, swift and wise  
To sound the deeps, or count the sands, or trace

<sup>101</sup> [Hankins, 1980, p. 355], [Graves, 1889, pp. 32-33]

<sup>102</sup> Reminiscent of Graves’ implicit disappointment when Hamilton needed more time than he thought appropriate to get over both Catherine and Ellen de Vere, see p. 90 and p. 113, these extracts are not about Hamilton’s “incidents of the past”, not even indirectly.

<sup>103</sup> See p. 156 of Nichol, J. (1881), *The Death of Themistocles – And Other Poems*. Glasgow: James Maclehose. <https://archive.org/details/deaththemistocle00nichgoog>.

Planets and suns in their majestic race,  
 Who look around them with the cold grey eyes  
 That take no touch of feeling from the skies.  
 But few there are who, in their huntsman chase  
 Of stars or elements, keep fast a place  
 In hearts attuned to human sympathies.  
 Of such wert thou, whose passion, ever young,  
 Still glowed unquenched beneath that weight of lore:  
 Sage, poet, friend, whose ready lyre has rung  
 Quaternion music and the loves of yore.  
 Where is thy spirit, childlike, pure, and true,  
 In the far space thou taught'st to gauge anew?

Different from Graves, Nichol Sr. seems to have been happy with Hamilton's letters about the "incidents of the past". Hamilton had visited his Glasgow Observatory in September 1855, and in November Nichol Sr. wrote: "Would that I could adequately tell you how much I value your confidences, and how gladly I welcome – even at this comparatively late date in life – the approaches of a new friendship – to say nothing of such a friendship as yours! I have outlived much, far more than I can estimate in value of any kind; and it is something to find, when one is growing almost weary, and inclined to think oftenest of the future, and a final rest, that new companions may still be found to take place on benches that have been vacated, and willing to pull with one at the oar. But this is only the selfish view of the case. I look with still profounder interest on the events of which you have so kindly told me, because I would fain learn what those things are that have torn, tried, and educated a mind like yours. Is it not possible that when summer returns I may induce you to cross over to us again, and that we two shall talk of such things and much else, during a ramble through Kannoek Moor, or by the margin of vast and solitary Loch Awe? It is in such places, I always think, that it is best for the mind to look into its own depths, and to hear of the sorrows and triumphs of another. Do keep this in memory. I shall do my best to induce Lady Hamilton to spare you for awhile then."<sup>104</sup>

And on the 20<sup>th</sup> of October 1855 De Vere wrote to Hamilton, as a reaction to Hamilton's letter of the 18<sup>th</sup> of October in which he had told the story about the "Beautiful Vision" and the lady's dog: "There is something very touching in what you allude to respecting your pilgrimage to the house in which you had first been greeted by the "beautiful Vision". But surely all such Visions should be looked on as Anticipations and Types of the Glory and Beauty unrevealed, rather than as lights which have melted away into the sad shadow-land of the Past." Hamilton reacted on the 1<sup>st</sup> of January 1856 by writing: "Your last conversation almost tempted me into writing again on the potentialities of the past – an idle, if not a dangerous theme – yet one to which the mind will recur." Obviously, although the thought remained to be recurrent as he had also written in 1848, Hamilton knew how not to sink back into long periods of melancholy and gloom. Even though De Vere tried to keep the memories active in a theological-philosophical way.<sup>105</sup>

<sup>104</sup> [Graves, 1889, p. 21], p. 221, [Graves, 1889, p. 47]. Again Lady Hamilton was mentioned freely; Hamilton's correspondents do not seem to have assumed at all that this would harm his marriage.

<sup>105</sup> [Graves, 1889, p. 39], [Graves, 1889, p. 57], p. 276

### Intermezzo

Catherine's suicide attempt in 1848 and her subsequent separation from Barlow in those socially very strict times must have had an enormous influence on her children. There is some indirect information thereof: James Barlow wrote an essay and an SF novel from which something of the atmosphere of those days can be deduced, thereby again indicating that Hamilton did not have much choice in how to react to Catherine's "distressed letter".

It is not known how much James Barlow knew about Hamilton and his mother when Graves published his biography, and what effect reading it had on him. He did know of course that after 1848 his parents did not live together anymore, but unless Hamilton told him, which seems very unlikely, he will probably not have made the connection between Hamilton's "mental fatigue and languor" upon arriving in Parsonstown, his mother's illness and the subsequent separation of his parents.

Yet he will have known about the suicide attempt; such news cannot forever be kept secret, certainly not for grown-up children. And that may have influenced him; in 1865 he wrote an essay called *Eternal Punishment and Eternal Death*, in which he "abolished the dogma of eternal punishment."<sup>106</sup> Not believing that everyone will be saved, he does believe that instead of eternal punishment there can be eternal death. He gives an example of a father having six children, who is given the choice either to send one of them to eternal misery in order to let the other five go to heaven, or he will, together with all his children, "sink back for ever to the silent void from which they were called to life by the voice of God." Since he does not doubt that every father would choose the second option, also generally "no moral being could consent to purchase eternal happiness at the price of the eternal misery of any sentient creature."

James Barlow then remarks about 'torturing His creatures for eternity,' "justified by the benefits which the hideous exhibition may produce in some unknown regions of the universe," that "the feelings which such propositions excite in me may possibly arise from some defect in my moral constitution, but I unreservedly state that I know no words sufficiently strong to express my abhorrence of such doctrine."<sup>107</sup> Placing his essay in the context of his mother's suicide attempt, it could be read that he believed that, even when in the eyes of his contemporaries his mother committed sin by doing that, she should not suffer for eternity; if she could not be forgiven by God she might be allowed to disappear completely after her death.

But after the publication of Graves' biography he did know about Hamilton's love for his mother since Graves does not hide who she was at all; in the first volume he openly mentions that a daughter of the Disney family became "the source of a still deeper feeling, which influenced his whole life," and in the index of both the second and the third volume he even gives her name in full. And at the latest after the publication of the second volume in 1885, which contains Hamilton's Parsonstown letters

<sup>106</sup> Barlow, J.W. (1865), *Eternal Punishment and Eternal Death; An Essay*. London: Longman, Green, Longman, Roberts, & Green. The essay can be read online: <https://babel.hathitrust.org/cgi/pt?id=hvd.ah4n7p>. The *Dictionary of Irish Biography* writes: "Like most fellows at the time [James Barlow] had taken holy orders, but in 1859 the archbishop of Dublin [Whately, see p. 242] rebuked him for heterodoxy on the doctrine of eternal punishment. Barlow never again officiated as a clergyman. In 1861 he became Erasmus Smith's professor of modern history."

<sup>107</sup> See pp. 49-51 of James Barlow's essay.

to him, James Barlow will also have made the connection between Hamilton's "mental fatigue and languor" upon arriving in Parsonstown and the subsequent separation of his parents. If he had not realized it before the publication, it may have been very difficult for him to read about it.

In 1891, two years after the publication of the third volume of the biography and now thus very likely knowing everything, James Barlow published an SF novel about an inhabited Venus<sup>108</sup> and, remarkably, in this novel the Venusian society James Barlow describes has some traits which could have been solutions to his mother's problems if she would have lived there.

The narrator of the story is Dr. Gervase van Varken [Gervase of Pig], coming from Rotterdam, his father being "of extremely miserly habits," who magically travels to Venus. All 100,000,000 inhabitants of Venus, or Hesperos, are about 20,000 years old. They do not know where they came from; they just simultaneously awoke into conscious life. There are men and women, and attraction between them, but they do not reproduce. There are no diseases or decay due to getting older since life is cyclic on Hesperos; the inhabitants grow older and younger by periods, but their mental powers do not decrease during juvenescence. If they are "mortally" wounded, they just disappear, but having no bodies to dissect, the people staying behind do not know what happened exactly. They then invent a joy-and-sorrow-metronome and discover that when one's pain or suffering, physically or mentally, exceeds one's joy by some fixed amount, that person instantaneously disappears.

How hard it was in Victorian times to talk about marriage can clearly be seen in James Barlow's description of it on Venus; while Hesperian society is described in a very smooth and quick writing style, the part about marriage is told with great care. "I should here say a few words on the relations between the sexes in this strange planet. On this difficult subject I have taken abundance of notes from the information I received; information which, I am bound to say, was given me without the slightest reserve. (I suppress all details in these notes, as public opinion, very rightly, does not permit the discussion of such matters.) It is obvious of itself that the permanence of individual life renders the establishment of such a life-contract as marriage an impossibility. Accordingly, the Hesperian relation which most nearly corresponds with the matrimonial institution on earth usually lasts for one of the cyclical periods [...]. This is, I say, the customary procedure; but the relation is terminable at any time, and at the will of either party concerned. It should, of course, be remembered that, as there are no children, the disastrous consequences which would be the inevitable result of such a state of things on earth do not take place."

James Barlow thus describes a world in which it would be possible for his mother to divorce and remarry at will, while at the same time letting his readers know how disastrous a divorce would have been for him and his siblings. And in case her unhappiness had not been caused by her marriage but by some mental illness, due to the Hesperian metronomic law also in that case his mother would not have had to sinfully commit suicide; at some moment she would just have disappeared.

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<sup>108</sup> Antares Skorpis, (1891), *History of a World of Immortals without a God : Translated from an Unpublished Manuscript in the Library of a Continental University*. Dublin: William M<sup>c</sup>Gee. <https://archive.org/details/historyofworldof000barl>. For the first edition James Barlow used the pseudonym which was also used by his daughter Jane (1856-1917). The second edition was published under his own name: Barlow, J.W. (1909), *The Immortals' Great Quest*. London: Smith, Elder & Co. <https://archive.org/details/immortalsgreatqu00barl>.

But all does not end well; the sacraments being a sign of God's engagement with humanity, such solutions were perhaps desirable, but unacceptable. Indeed, discovering that after evanescence they just reappear on the other side of the planet the Hesperians understood to be immortal, and thereupon realizing that some Unknown God must have brought them into life, the fact that He never communicated with them slowly spread a "World-Weariness" over the planet.

No-one being born on Hesperos, and no-one dying, the appearance on the planet of Dr. Gervaa van Varken was met with extreme surprise, and learning that he came from another planet, Earth, they asked him to lecture them on Earth and its history. But what they did not know was that Dr. Gervaa van Varken had been a very abused child which had made him extremely misanthropic; he only travelled to Venus to escape from Earth's misery. He thus described Earth as a very unpleasant planet; his lectures about humankind's helpless infancy, their diseases, wars and hatred "filled the Hesperians with horror and dismay." And upon their asking about the Maker he explained that humankind adhered to various religions, who all fought each other. But when he told them that according to Christianity "the Maker designed the greater part of the human race to live everlastingly in excruciating torture by fire, the whole assembly rose simultaneously to their feet and left the cathedral. They would hear no more." The result was an intensifying of the gloom which already prevailed on Venus; the hope to find their Maker, which had been excited by his arrival, turned to despondency. Thereupon they wanted to learn how to travel to Earth to examine it by themselves, something Dr. Van Varken welcomed, being convinced he was right about humankind's misery. But then it appeared that due to the the "law of evanescence" the Hesperians can never leave Venus; escape is impossible.

Yet, his notes having been found in a library, Dr. Van Varken apparently was able to overcome the Hesperian attraction, "and here ends our knowledge of the Godless Immortals. It is not likely that their hundred and sixty years' additional existence [after Dr. Van Varken's visit] has lightened the World-Weariness and Sorrow which was plainly settling down upon them like a heavy pall." Next to this being a story about a misanthropic Dutchman who was able to make a whole planet miserable, the frightening and overpowering idea that this World-Weariness and Sorrow might probably last for all eternity makes the Godless Hesperian solutions for Catherine far more horrifying than an eternal death; James Barlow remained a very religious man.

### **Romantic and poetic**

After Catherine's death Hamilton started to collect 'memorials' of Catherine; the pencil case she had sent him, locks of her hair which he mingled with his own "as if it were for a joint burial," and portraits he kept in a library desk and would gaze on. According to Hankins, "He pressed Thomas [Disney] so hard for a picture that he was rebuked and felt the need to apologize. In March 1854 Thomas finally lent Hamilton a miniature portrait for two days. Hamilton arranged to have it copied in Dublin. The copy was tinted unsatisfactorily, but it still had the power to disturb him. "I locked myself up, nearly the whole of that time, to gaze on it alone; but it did not soothe." He discovered that the likeness was better when viewed in a mirror, and he preferred to gaze on it that way."

Hankins remarks that "his relationship with Catherine was held by Hamilton to be highly romantic and poetic" and indeed, his romanticism and poeticism was



further expressed by writing sonnets, and kissing the floor in Summerhill. Hamilton more often used kissing as a romantic expression of his feelings; the lady's dog had 'kissed his lips', and he wrote in 1855, in a letter to Lady Dunraven, Adare's mother and one of the confidantes in his earlier years, that "last autumn" he "kissed by moonlight at Grasmere" Dora Wordsworth's grave. He had visited her grave while staying at Graves' house, Dovenest in Windermere, and had also recalled that visit in the "playful letter" to Lady Campbell but, apparently again adapting his letter to the person he wrote to, he did not write about kissing gravestones then.<sup>109</sup>

Apart from extracts from the letters to De Vere of 1855 Hankins hardly gives quotes from the many letters Hamilton wrote about Catherine after her death, yet he does give a quote which seems to sketch their atmosphere. "By the end of June [1855] Hamilton had begun to reveal himself more fully in his correspondence with Lady Wilde."<sup>110</sup> He had just read Hawthorne's *Scarlet Letter*<sup>111</sup> and it had cost him three nights' sleep: "Ah, I could tell you a story, in real and almost recent life, though stretching back in its extent over fully 30 years, to which that tale has some affinity. ... This 'bearer of the Scarlet Letter' had only sinned in thought ... she swallowed poison; and was with difficulty preserved to linger, under unmerited selfreproach ... for 5 years longer on earth, bearing, alas! her Scarlet letter with her always." He went on to describe his last visits with Catherine "at the very court of Death" and the "kisses without limit" that he took "when the known and near approach of the Destroying Angel had confounded all earthly distinction."

Since Hamilton often romanticized stories, as he did with Eliza's beautiful death and the story about the lady's dog, it is not certain whether he really did not sleep for three nights. But it also does not indicate that he was in any way a strange man; Hankins remarks that "his correspondents responded with interest and sympathy, which would indicate that they adopted his view of the story." De Morgan told him about similar griefs, Nichol Sr. invited him to talk about "such things and much else" during a ramble, Dora Disney did all she could to help him through this crisis, De Vere wrote consolatory letters, and even Mr. Hassell, whom Hamilton had met at the meeting of the British Association in Hull in 1853, did what he could. His wife had "loaned him a book that he had given to Catherine to try to reclaim her lost conviction," whereupon Hamilton had asked permission of Hassell to correspond with his wife in order to "unburden himself from grief." Hassell had refused, but he had not just refused, he had refused because he "thought his wife was too sensitive to bear the burden of such confidence," and he had invited Hamilton to write to him instead.<sup>112</sup>

<sup>109</sup> [Graves, 1889, p. 28], p. 394, [Hankins, 1980, pp. 351-352], [Hankins, 1980, p. 449 note 15], p. 220. According to Hankins Hamilton also spoke of kissing her gravestone in a letter to De Vere in July 1855.

<sup>110</sup> She became Lady Wilde in 1864, after the knighting of her husband.

<sup>111</sup> Hawthorne, N. (1850), *The Scarlet Letter, A Romance*. Boston: Ticknor, Reed, and Fields. <https://archive.org/details/scarletletterrom01hawt>. The novel, set in 17<sup>th</sup> century Boston, starts with Hester Prynne who, with her baby in her arms, has to stand on a scaffold to be publicly humiliated, wearing a scarlet letter A, which indicates that she is an adulteress. She had believed that her husband had died at sea but he returned and, discovering that her "godly pastor" was the father of Hester's child, he torments the guilt-stricken lover who then confesses and dies in Hester's arms.

<sup>112</sup> [Hankins, 1980, pp. 355-357], p. 304, [Hankins, 1980, p. 353]. The way Hamilton focused on Catherine's story rather than on his own again supports the conjecture that it was in a high degree her deep unhappiness which triggered his intense reaction, instead of a lifelong secretly nourished impossible love.



### 8.5.2 A salutary effect

Hankins remarks: "Hamilton's unburdening before so many correspondents seemed to have salutary effects." According to him, part of Hamilton's persistence of telling his story was, as Hamilton wrote in 1856 "in apparent jest but with more than a hint of seriousness" to Agnes Nichol, that he was "most anxious that in Dublin I should be looked upon as a perfectly prosaic person, with not a bit of the romantic about him, whereas in fact my life has been a romance." For Hamilton, apparently feeling more at home in the Romantic era, that must indeed have been an horrific idea since Romanticism, with its emphasis on emotional intensity, explicitly dismissed the emphasis on reason of the Scientific Revolution and the Enlightenment.

But his "persistence" will also simply have been necessary; if he did not want to wreck his marriage he simply had to come to terms with his feelings. In those Victorian times being unable to openly talk about it, he did what now probably would be advised by a therapist to someone in his situation, having a remembered pain which threatened to take over his whole life; a life Hamilton, as he often wrote, even in otherwise distressed periods, was actually quite satisfied and happy with. He wrote very many letters, for as long as he felt the need to do that, as open as possible; and he indeed received much sympathy. It is quite remarkable that Hamilton dared to do that, and that he was so honest as to conclude his letters "with the explanation that he could not abstain from writing about the subject for at least a little while longer."

According to Hankins "during the next years the references to Catherine became less frequent, although he continued to talk about her with the Disney family."<sup>113</sup> In handling this very difficult situation Hamilton thus did exactly what he had found to be salutary in the summer of 1832; instead of trying to 'bear it as a Stoic' or 'maintain his philosophic calm', which actually had made him sink deeper into melancholy and gloom, he did not fool himself anymore but, next to diverting his mind, by writing all these letters he regained the internal freedom to stop thinking back too much.

### A domestic quarrel

As mentioned, one of Hamilton's correspondents was Dora Disney who, according to Hankins, "recognised that his letters were expressions of anguish and she did all that she could to steady his mind and help him through this crisis." But halfway June 1855 Lady Hamilton found one of her letters which had "dropped out of [Hamilton's] pocket," and she "provoked a domestic quarrel" since she thought that Dora Disney "was fast taking the place of Catherine in Hamilton's affections." After the quarrel, on the 14<sup>th</sup> of June, Hamilton asked Dora Disney "to have her letters addressed by Thomas, but he did not stop the correspondence."<sup>114</sup>

That Hamilton saw this correspondence as Dora Disney did can be derived from an 1853 poem to which Graves comments: "From his friend's house at Carlingford, Hamilton passed on to Rostrevor Vicarage, and there in the album of Mrs. Evans, [Dora Disney's] mother, he inscribed the following verses, intended to depict the character of Mrs. Thomas Disney. The friendship of this lady continued to the end of his life to be prized by him, and it may be added that she is still, by a wide circle of acquaintance, honoured not only for her domestic virtues but for effective exertions

<sup>113</sup> [Hankins, 1980, p. 355], [Hankins, 1980, p. 357]

<sup>114</sup> [Hankins, 1980, p. 357]. Thomas Disney thus knew, and apparently did not see a problem.

as a social benefactress. I refer to her promotion of the setting up of seemingly well-appointed wooden huts by the wayside for the sale of coffee and innocuous refreshments.”<sup>115</sup>

A DESCRIPTION.

Long have I honoured but not dared to praise  
 A friend whose worth transcends my humble lays;  
 Nor asks the praise of man: yet let me here,  
 In few faint lines, unutter'd to her ear,  
 Some traits of mental portraiture express  
 Her nearer, happier friends the name will guess.  
 Unwearied kindness, judgment, piety;  
 In doing good a blest activity:  
 Fitted to gently teach; yet if, in aught,  
 Others can teach her, willing to be taught.  
 Never too much depress'd, nor too elate;  
 Equal to adverse as to prosperous fate:  
 Her constant mind can bear whate'er befall,  
 Her cheerful heart can smile upon it all.

This poem was written in September 1853, thus before Catherine's death, but these last lines express, of course, exactly what Hamilton needed during the turbulent times thereafter. In a time when there was no psychology, no therapy, no talkshows, no self-help books, no questions sections in magazines or on websites, the only thing people could do was try to help each other not to go insane. It is fortunate that Hamilton was not an introvert worrier which meant, as it probably also did for his sympathizing correspondents, that he read, and could write, romanticized stories while trying to keep his marriage safe; they were children of their time.

Yet Lady Hamilton's quarrel shows that even if she perhaps did not know exactly what was going on, she must have guessed much. She knew about Ellen and Catherine; in his antenuptial poems Hamilton did not the least try to conceal his past for her, he even literally mentioned in a letter to her his two most "bitter moments"; being rejected by Ellen and hearing of Catherine's engagement. And since she had known him already in the summer of 1831 and perhaps even before that, both of them having been regular guests at Scripplestown, she had seen him trying to maintain his philosophic calm after Catherine, she had seen his happiness while being in love with Ellen, his melancholy moods in the spring of 1832 after being rejected by Ellen, and his resolute change which had "restored" his "tone of mind" and "health of body" in the summer of 1832, resulting in his asking her to marry him.

<sup>115</sup> [Graves, 1885, p. 691]. Before giving this comment, Graves had made a remark about Hamilton's then new connection with Mr. and Mrs. Talbot Hassell "with whom, and the younger members of their family, he entered upon a congenial acquaintance, which, giving him great delight at the time, was continued by correspondence kept up on terms of mutual esteem and confidence. This was but one instance of his power of turning into permanent friends strangers with whom casual circumstances brought him into intercourse." Yet the combination of these remarks can easily be seen as an indirect criticism of Lady Hamilton who was, in Graves' eyes, not capable to make friends with strangers due to her presumed "extreme shyness and retiredness", and who was not honoured for her domestic virtues or effective exertions as a social benefactress.

It can therefore certainly be assumed that she knew him very well, even with regards to the sides he perhaps tried to hide from her. She had taken much time to consider his marriage proposal, indicating that she will have known beforehand that this marriage would not be very easy, and she lived with him for many years now. It makes this quarrel quite imaginable: Catherine, and Hamilton's adoration for her, had always been there and was therefore not dangerous; since she did not quarrel about Catherine she was obviously understanding in this matter. But this adoration being replaced by adoration of someone else; alive, living nearby<sup>116</sup> and regularly visited, was something completely different. It is easy to be on her side herein: she must have been very afraid of losing such a caring and affectionate husband as Hamilton, whom she loved and of whom she was proud; who knew her as no-one else did, who never complained about her illnesses and accepted that she did not want to go out or travel far.

### Remembrances

Although Graves never mentions Louisa Disney's name, according to Hankins in 1827 Hamilton had been thinking about marrying her. Louisa was one of Catherine's younger sisters and Eliza would have welcomed this marriage, but Hamilton decided to dismiss the thought, mainly because of Louisa's disinterest in science. In July 1827 Louisa had visited the Observatory, and Hamilton had "found, near the great circle of the Observatory" "forgotten and fading flowers." The last lines of the poem he then wrote read:

Yet perish not, loved flowers,  
So soon; so suddenly;  
Though parted from your native soil,  
Yet bloom awhile with me:  
And be to me an emblem  
Of hopes that change and fade,  
And of the heart's young sweetness  
On Science' altar laid.

These sentences led Hankins to the remark that "a heart laid on the altar of science apparently had no room for Louisa."<sup>117</sup>

But another reason not to marry her was that he then already knew she would be a substitute for Catherine, and it can probably be seen in this light that, in 1861, Hamilton kissed Louisa. They had met again at Thomas Disney's house, and Louisa was fascinated by his story. Hankins writes that "The correspondence that ensued from this meeting was semiclandestine. [...] Her inquiries revived the old feelings in Hamilton. Her letters are teasing and flirtatious, while his are increasingly disturbed. [...] Hamilton insisted that they were doing nothing improper, but [on the 16<sup>th</sup> of August] he instructed Louisa how to send her letters so that they would come to him directly and not pass through the hands of any servant."<sup>118</sup>

<sup>116</sup> Around that time the Disneys moved from Carlingford to Finglas.

<sup>117</sup> [Hankins, 1980, p. 358], p. 152, [Graves, 1882, pp. 246-247], [Hankins, 1980, p. 57]

<sup>118</sup> Hamilton must have met Louisa at Thomas Disney's house sometime in June since he wrote the first letter about it on the 30<sup>th</sup> of June, to Mrs. Wilde. The last letter of the "semiclandestine" correspondence with Louisa mentioned by Hankins is from the 26<sup>th</sup> of August.

According to Hankins Louisa gave Hamilton a far better portrait of Catherine than the one he had received from Thomas Disney in 1854, and he put it in his library desk with the earlier ‘memorials’; on the 30<sup>th</sup> of June he wrote to Mrs. Wilde that he looked at it “several times a day” and that he would “never show it to [his] wife.” In that same letter he confessed to Mrs. Wilde that he had kissed Louisa; Hankins writes: “he had taken her into the meridian room alone. “We did not talk of Astronomy! ... I must admit that our lips met (for the first time in our lives).””<sup>119</sup> But Hamilton did understand that he was trying to revive the past; on the 2<sup>nd</sup> of July 1861 he wrote to Mrs. Wilde: “You may conclude how intimate we once were, when I mention that I found an opportunity for saying to her (lately) that I had once wished to marry her – or rather had thought that I so wished: but found that I had sought in vain to transfer my feelings from her (by me) lost sister and that I had mistaken affection to the family, for love to the individual, in short, had confounded recollections with hopes. ... She sweetly assured me, that she knew, she understood it all.”<sup>120</sup>

On the 13<sup>th</sup> and 14<sup>th</sup> of July 1861 Hamilton wrote to Louisa about sitting around the fire and listening to Catherine play the harp, afterwards realizing that her “elder suitor” was in the room. And on the 16<sup>th</sup> of August Hamilton described to Louisa his meeting Catherine in August 1824: “Wonderful hour! of my sitting, irregularly, from the very first, – beside her: when, without a word said of love, we gave away our lives to each other. She was, as you know, beautiful; I was only clever and (already) celebrated.” Hamilton “moonied” over the photograph of Catherine which Louisa had given him “in all sorts of light” as he wrote to her on the 26<sup>th</sup> of August, in “the morning sun, the noonday sun, the evening sun, the twilight, and now candle-light.” He sent Louisa a copy of the “Neville and Sydney correspondence”, according to Hankins “the only complete copy he ever let out of his hands.”<sup>121</sup>

It is not known for how long this correspondence continued, but it can be assumed that it did not remain to be an intense correspondence; Hankins does not refer to any letters after the ones here discussed, of which the last one was written on the 26<sup>th</sup> of August. Although through the foregoing the impression is created that during the correspondence with Louisa Hamilton was just a sad and brooding man, not sleeping, mooning over Catherine’s photograph and writing disturbed letters, it must be kept in mind that in the meantime he was also working on his *Elements* without interruption, hoping to be able to publish his book before the end of the year. Only four days after the letter to Mrs. Wilde in which he confessed to have kissed Louisa, Hamilton wrote a note in which he stated that he was “greatly struck by the brightness of [the] nucleus” of the “fine” comet of 1861, and in August he presided and attended public meetings. Through these meetings he made a new friend, Ingleby, with whom he spent, still in August, an evening “at the Observatory in their first conversation on Philosophy.”<sup>122</sup>

<sup>119</sup> [Hankins, 1980, p. 357], [Hankins, 1980, p. 451 note 49, 50], [Hankins, 1980, pp. 352-353], [Hankins, 1980, p. 450 note 28]

<sup>120</sup> [Hankins, 1980, p. 407 note 48], [Hankins, 1980, pp. 56-57]. The years 1860 seem to have been, briefly, “as ‘permissive’” as the same decade in the 20th century, and perhaps that also was of influence. Marsh, J. (2014), *Sex & Sexuality in the 19th Century*. Victoria and Albert Museum London, [www.vam.ac.uk/content/articles/s/sex-and-sexuality-19th-century](http://www.vam.ac.uk/content/articles/s/sex-and-sexuality-19th-century) [Accessed 01 Nov 2014].

<sup>121</sup> [Hankins, 1980, p. 404 note 62], see also p. 55. Writing to Mrs. Wilde that he was “looking” at the photograph “several times a day” while he wrote to Louisa about “moonining” over it “in all sorts of light,” Hamilton again seems to have adapted his descriptions to the person he was writing to.

<sup>122</sup> [Hankins, 1980, p. 451 note 51], [Hankins, 1980, pp. 357-358], p. 240, p. 241

### Hidden letters and memorials

Graves had mentioned that, when he visited Hamilton on his deathbed, after they had talked together Hamilton “roused himself and used for the last time his pen – so long his almost inseparable instrument of thought – in feebly writing a few words to prepare his physicians for finding him with little voice left after his long converse with me.” But Hankins read a “scrap of paper”, dated September 2, 1865, Hamilton’s dying day, on which Hamilton had written, in an extremely feeble hand: “Sir W.R. Hamilton wishes his letters to be given to Mr. W.E. Hamilton by the *postman* and *not* to *any other* person here. The postman is *not* to give any letters for me to anyone but Mr. WEH who *alone* is appointed to receive them. WRH.” Hankins adds: “Hamilton’s last hours were less serene than Graves would have us believe.”

While writing the “scrap of paper” Hamilton may have been thinking of his hidden correspondence with Dora Disney-Evans, and if he did not correspond with her anymore at the time of his death there were still letters from De Morgan which he did not show to his wife, or perhaps he was afraid that one of his confidant(e)s would write a letter too open to show to Lady Hamilton; his correspondence was obviously primarily a private matter, as it had probably always been.

Graves most likely did not know anything about “hidden letters” and this note at the time of Hamilton’s death, but if Hankins read them, also Graves will have read them while writing the biography. Yet, the note written by Hamilton in Graves’ presence will not have been the same note, and Graves will not have lied about its contents, he could simply have left it out as he did with the “semi-clandestine” correspondences; Louisa Reid’s name is never even mentioned in the biography. Hamilton thus will have written the note about his letters earlier that day, perhaps before Graves arrived at the house. It must have been a great relief for Hamilton to have been able to write that before he died, therewith at least having tried to prevent his wife from finding out although he doubtlessly realized that his son would know everything after reading the letters.

For William Edwin that will probably not have been a very big problem though; he had figured out some of his father’s secrets already when still a child, making it easy to imagine that it will also not have been much of a surprise to him. They lived in the countryside where he had been able to get away very easily to do forbidden things, while his parents were still “snugly tucked under the blankets.” In his *Peeps* he describes how he, being thirteen and in love, suggested his Henrietta an elopement and, trying to bring her to a decision, “with a hooked wire, I worked out a forbidden novel out of the locked wire door of one of my father’s libraries.”

But from the continuation of William Edwin’s story it can also be seen how very strict the Victorian era was if this was a forbidden book: “From it, slightly changed, I picked out a beautiful form of proposal. “If Henrietta, the purest and most devoted affection – if the consecrated constancy of a lifetime – if the most assiduous sacrifices.” Blushing, with downcast eyelashes, she snatched her forefinger away and leaving me kneeling on a bunch of nettles, chased a butterfly. [...] After she returned from a Paris boarding school, I was in utter misery. The short skirts were lengthened. Full of formal etiquette, no more would she be chased along the parapet nor climb the hornbeam.”<sup>123</sup>

<sup>123</sup> See p. 261, [Hankins, 1980, pp. 377-378], [Hamilton Jr, 1895, p. 3].

If it was not hidden primarily for guests Hamilton thus hid more from his wife, and his son knew. It is not known whether Lady Hamilton already knew about withheld correspondences and the memorials, but if she did not it is to be hoped that William Edwin, who sorted out Hamilton's study after his death, kept his mother away from the library desk holding them.

### Again daily life and family

Also during these difficult periods Hamilton's daily life continued quite normally, which can more easily be seen in Graves' than in Hankins' biography. Where Hankins often seems to be too grave or too absolute, Graves seems to try to convince his readers that hardly anything happened. This can again be seen during the weeks in which Hamilton corresponded with Louisa; while reading Hankins' biography Hamilton just seems to have been writing "increasingly disturbed" letters, while Graves just gives letters showing that daily life continued. Only when comparing the two biographies it can be seen that both happened; although Hankins does not give letters or quotes Hamilton will doubtlessly have been disturbed, but not just all the time.

Hamilton appears to have been able as ever to have fun with his family and with De Morgan's letters, which were a constant source of jokes. On the same day that Hamilton wrote to Mrs. Wilde that he had kissed Louisa, the 30<sup>th</sup> of June 1861, he wrote to De Morgan: "It is, I suppose, about a fortnight ago, but it may be three weeks, that I received a note from you, in which you mentioned that you had perhaps caused some trouble to Lady Hamilton of Edinburgh by obliging her to act as an amanuensis, &c.<sup>124</sup> I read it out for my wife and daughter; and remarked that my landlady in Edinburgh, about ten years ago, might have thought me a sort of Don Juan if she had observed that I posted, on one evening, notes to two Lady Hamiltons. My daughter Helen said, 'I suppose, Papa, that you directed them with your *two hands*, on the principle of not letting the left hand know what the right hand doeth.'" "If you go on this way," I replied, "I will tell De Morgan."<sup>125</sup>

There could of course be a connection between these remarks and the writing, on the same day, the letter to Mrs. Wilde about kissing Louisa. It is not known which event happened earlier; Graves does not give the entire letter to De Morgan, only the post scriptum, and without reading Hamilton's letters of these weeks nothing much can be said about a possible connection. But it was mentioned earlier that Hamilton could write about Catherine and then make a remark about his wife; he never seems to have been mentally completely separated from his family, not even in difficult times. And making this kind of fun does suggest that Hamilton really was honest when he insisted that they had done nothing improper and indeed, "our lips met" does not sound like an intense and very passionate kiss. Moreover, also Louisa was married and marriage being holy, if it had been 'real' kiss he would never have risked damaging her reputation and her marriage by writing about it to Mrs. Wilde.

<sup>124</sup> De Morgan had corresponded with Sir Hamilton of Edinburgh and had remarked in a letter to Hamilton: "There is another Lady Hamilton whom I must have bored terribly; since she had to be amanuensis through many a weary page of writing, all along of me." [Graves, 1889, p. 565].

<sup>125</sup> [Graves, 1889, pp. 565-566]. Graves adds: "In De Morgan's reply he says: — 'I fully agree with Miss Helen, that the two hands ought to be employed, and the rather because one of the two marriages must be a left-handed one.'" A 'left-handed marriage' could indicate a marriage between a man of higher rank and a woman of lower rank, but it could also indicate a mistress.

On the 7<sup>th</sup> of August Hamilton wrote, again to De Morgan, “As another joke, however poor it might be, I enclosed to you yesterday the first proof of the demi-sheet  $2\kappa$ , of my *Elements*, with a foot-note (p. 252) about “purely geometrical sighs”!”, according to Graves a misprint for ‘signs’. “My daughter thinks that you might be able to assign the form of a “purely algebraical sigh.”” Graves remarks: “It is plain from Hamilton’s letter of August 10 that his daughter had previously to that date received from De Morgan an answer to her challenge to supply the “form of an algebraical sigh”: but no such answer appears in the correspondence.”

Hamilton wrote in the letter of the 10<sup>th</sup> of August: “My daughter was in a very pleasant state of anger yesterday, at your having so pertinently (not im-) answered her question about the form of the purely algebraical sigh! We have heard the words “in due form”; but it has not quite come to that with her, yet. The little puss has stolen away from me, to spend to-morrow, which will be her twenty-first birthday, with an aunt of hers, about ten miles off, who is my only surviving sister [Sydney]. So, perhaps, you may have an opportunity of drinking her health – in water, if you choose. P.S. – A few days ago I took down an old large prayer book, and pointedly called her (my daughter’s) attention to that Canon of the Irish Church which forbids minors (= people of each sex, under twenty-one) to even contract themselves in marriage, without the consent of parents or guardians. She seemed to think that she could bide her time.”

De Morgan replied on the 12<sup>th</sup>: “I dare say the young lady’s wrath will cool down. It is the technical, official, kind of anger which is always put on against any insinuation that the passive participle of the verb “to captivate” may be their lot as well as the active. *L’un n’empêche pas l’autre, mais au contraire* [The one does not prevent the other, rather on the contrary]. I congratulate her on being out of reach of the canon. You waited nearly to the day before you pointed out this canon, as you tell me. It was wise; for there is in the best a principle of restiveness, which delights at setting control at defiance; and not in young ladies only. I have heard of a young lady who outgrew the canon without knowing it, and who afterwards, at 21+, hearing of some other who had been prevented from disposing of herself at 21–, said “I am sorry I didn’t know I mightn’t: I’m sure I would.””<sup>126</sup>

### Not just a brooding man

This is not quite the description of a sad and brooding man, mooning all day and night over his lost love, broken by losing her. Hamilton had learned how bad that had been for him and how he could change it, and every now and then he made remarks about that; both in 1832 and in 1856 he even tried to support his wife mentally by showing her that it is possible to stop severe and lasting fits of melancholy. Hamilton mourned Catherine, and wrote disturbed letters to Louisa, but that cannot have lasted all day for the entire two months, that would certainly also have showed in his work, which it did not. Graves is clear, Hamilton’s work was interrupted only once, in 1848 during the six-week correspondence with Catherine. This does not at all mean that Hamilton’s feelings should not be taken seriously, but that next to the

<sup>126</sup> [Graves, 1889, pp. 567–568]. In 1858 Hamilton had also mentioned, in a letter to Tait, honouring the birthday of the quaternions “in an extra cup of – ink,” see p. 10. It may not have been customary anymore to pledge someone’s health in wine, see p. 433, but Hamilton does not sound very enthusiastic about that.



letters about Catherine, no matter how honest his despair, and how terrible he felt when he wrote them, or perhaps how romantic, he had, as he wrote to Thomas Disney, "upon the whole, a studious and happy life."

Throughout his life Hamilton made friends, and he was able to bond with people of very different ages. He befriended Maria Edgeworth (b. 1768) and Wordsworth (b. 1770) who both were much older, but also the much younger Mrs. Wilde (b. 1821), and James Barlow (b. 1826) with whom he apparently corresponded until the end of his life. He had friends of his own age such as Thomas Disney (b. 1799) and John Graves (b. 1806), and having befriended the Nichol family, consisting of Nichol (b. 1804), his then second wife Elizabeth Pease (1807-1897), and the children John (b. 1833) and Agnes (b. 1839), during the meeting of the British Association in 1855, Graves writes while describing 1859: "At Aberdeen Hamilton was the guest of Mr. James Westland [(1802-1864)], and, as on former occasions of a like kind, he appears to have gained the esteem of the whole family circle of his host."<sup>127</sup>

His writings show that he loved his family; in 1850 Hamilton wrote in his manuscript book: "No one who has not listened (as perhaps no one has) to my chats with my eldest boy (then quite a child), can, I think, appreciate my mind, in point of philosophy. Could his questions and my answers be written down correctly, by a shorthand writer, they would form, I believe, a very remarkable book, but as it is in love, and through love, that all this is performed, so I am quite content to leave all that may or might result from it in the hands of Him who is love." And in 1852 he wrote in a letter to De Morgan: "This is my little daughter's twelfth birthday, and I hunted for your puzzle [Graves remarks: square dissected into three squares] to amuse her [...]. The red ink is a birthday present from her, which I found on my pillow, in a parcel with pens, &c., when I awoke pretty early this morning; that is always her notion of her birthday, that she is to make the presents. Her mamma found a pretty parasol."

And of course, there was always his mathematics and his boyhood dream of fame. William Edwin mentioned Hamilton's love for his work: "I amused him once by saying that his lecturing us on equations of the fifth degree reminded me of the lion preparing for action by whetting his claws on the bark of a tree. ... He appeared to enjoy intensely arithmetical calculations. I never saw him look so perfectly happy as when running like a sleuth-hound on the track of some unhappy decimal which had marred the work, and unearthing it in its den. ... I cannot otherwise express his attachment to his own MS [Manu Scriptum] volumes than by saying that he *loved* them. He once, at a luncheon party of students at the Observatory, ranged some thirty of them on the chimney-piece, and, turning to the students, said, "These books represent much of the happiness of my life.""

In Graves' biography it can be read how Hamilton tried to be a good man, and although he was often afraid not being humble enough, he occasionally thought that he was rather successful. And indeed, even though Hamilton was perhaps not a perfect parent, as most people are not, after his death Archibald gave a description of his father of which Hamilton could have been very proud. Hankins writes: "When Robert Graves asked [in 1882] for his judgment about his father's intellectual powers, Arch responded: "With regard to his intellectual ability, I really do not pretend to judge [...], having neither part nor lot in the matter. But there is another department in

<sup>127</sup> See p. 153, p. 385, p. 307, [Graves, 1889, p. 119]. Westland, married to Agnes Monro (1809-1889), was an Aberdeen bank manager.

which everyone with a soul is not only entitled, but is bound to judge. I mean of course practical Religion and Morality. It is this, and not in the Intellectual department that I proudly recognise some stir of blood or lineage, however faintly – and once or twice in my life I have felt inclined to claim (in my own mind I mean) relationship with so truly great a character.”<sup>128</sup>

## 8.6 Ready to burst into a genial laugh

It is of course still possible to see Hamilton's pain as a proof that he fooled himself for the rest of his life and only loved Catherine. But it is argued here that that is illogical; despite all Hamilton's romanticism, it can be seen on every page of Graves' biography that he was a devoted husband, just as Lady Hamilton was a devoted wife. The marriage seems to have been steadfast overall; and although their last years were, perhaps, shortly interrupted in 1861 by Hamilton's encounter with Louisa, their quiet times seem to have begun after Lady Hamilton's "domestic quarrel", Hamilton's unburdening letters to De Vere of 1855, and Lady Hamilton's subsequent "nervous" illness in 1856 during which Hamilton was very worried about her, and took care of her for months. When in his letters mentioning his wife it sounds sweet and familiar, and as many marriages in later years become more relaxed, especially after well weathered crises making mutual confidence stronger, also the Hamiltons seem to have had a pleasant last decade.

In his later years Hamilton's life emotionally did become calmer; in 1859 Hamilton wrote to Tait about the 1838 visit he made with his wife to Lord Northampton at Castle Ashby: "In acceptance of a challenge from a Lady, long ago, beside whom I was sitting in a Music Room, I did dash off a Sonnet before the performance had ceased. But those days are over: – happily? Yes, so far as the getting a little more sense, and less sensibility, is concerned."

Almost in his last year Helen Eliza mentioned her father's "youthful spirit of enjoyment", and also Graves had written, when describing 1829: "A peculiar charm of Hamilton at this time, and it never quite departed from him, was a boyish cheerfulness which irradiated all his intellectual activity." When describing 1822 Graves gave perhaps the most beautiful and happy description of Hamilton, a description which, in his biography focusing so little on Hamilton's daily life, unfortunately became overlooked: "The solemn dogged seriousness with which he would take in hand any problem of daily life which was new to him, whether it were important or trivial, and, if it were trivial, the double consciousness alongside of this, taking humorous enjoyment in the comedy, and ready to burst into a genial laugh, were characteristic of him to the end of his life."<sup>129</sup>

Unless he was happy travelling Hamilton dearly missed his wife when she was not around, and it soothed him if she was. And nowhere does Graves, or Hamilton himself, say anything negative about his feelings for her; even while criticizing her Graves mentions "the affectionate feeling which Hamilton never ceased to cherish towards his wife." There are certainly unhappier marriages, even without lost loves.

<sup>128</sup> [Graves, 1885, p. 649], [Graves, 1889, p. 401], [Tait, 1866, p. 38], [Hankins, 1980, pp. 383-384]

<sup>129</sup> [Graves, 1885, p. 277], [Tait, 1866, p. 38], p. 245, p. 81, [Graves, 1882, p. 123]

## Chapter 9

# Solemn dogged seriousness

*In this chapter a case will be made for the proposition that the household problems of the Hamiltons were far less severe than many contemporary stories imply. Hamilton apparently did have a normal daily routine except when in the middle of a mathematical problem, and trying to even then force him into a sturdy daily routine would likely have had severe consequences for his pursuit after his mathematical goals. Lady Hamilton also did not interfere with her husband's way to handle the papers in his library, yet apart from that there is not any indication that this was not a totally normal household other than that it was moulded around a very unusual man. Thereafter a likely origin of a part of the contemporary gossip will be presented, and in the last part of this chapter the Hamiltons' illnesses will be discussed. Hamilton did not die due to drinking or even overeating as has been suggested; he died of gout, a very common disease. And Lady Hamilton's two "nervous illnesses" appear to be quite understandable if, in those very strict times, both her having been married to a social, romantic and very famous, but at the same time very home-loving man, and the conditions she had set for this marriage, are taken into account.*

Over the years many stories have been told about Hamilton, describing him as an extremely focused man; untidy, living irregularly, and oblivious of the world around him. Many of these stories are rooted in remarks Hamilton made about himself in his letters, or in descriptions by his family, friends and acquaintances, but unusual stories about unusual and very famous people tend to get extreme when they are re-told very often. Next to having had the aforementioned traits although not by far as extreme as is claimed in many short biographical sketches, Hamilton also was doing mathematics on an unusually high level, and from Graves' biography it is impossible to infer with certainty how much of his unusualness was due to his character and how much was due to his genius, knowing that he had periods of "mathematical trance", feeling the "pains and pleasures of thought-birth", thereafter working out all these thoughts and inventing new mathematics along the way.

Graves does not seem to have had much appreciation for the way in which Hamilton did his mathematics, especially when, during "mathematical trances", he skipped meals and worked all through the night; while writing his biography Graves seems to have been mainly concerned with the restoration of Hamilton's bad

reputation which was, according to him, in large parts due to not having had the regular lifestyle he thought Hamilton had needed. Trying to show what a good man Hamilton had been, therewith trying to brighten Hamilton's memory, profoundly influenced the picture he sketched of Lady Hamilton as the wife who could have made Hamilton lead such a beautiful and orderly life if only she had been stronger.<sup>1</sup>

## 9.1 An overall normal household

In 1839 Lady Hamilton fell ill with her first "illness of a nervous character", but it is not exactly known when that started. Graves writes that towards the end of the year she was "in delicate health, looking forward to her confinement, and from the disturbed state of the country and her extreme timidity of nature had come to entertain a feeling of terror at the idea of remaining in a house so lonely in situation as the Observatory." Early in 1840 lodgings were taken for her in Dublin.

Graves then gives a long comment in which he in fact sacrifices Lady Hamilton's reputation for the sake of saving Hamilton's: "For some time before she first left her home, relaxation of order in the household at the Observatory had set in, and made rapid progress: this state of things naturally continued, or rather became aggravated during the time when she was absent from home, but expected soon to return. Her stay in England brought a change for the better in these respects; Hamilton's sister Sydney came to his succour, and temporarily retrieved affairs; so that he had comparative comfort, and was able occasionally to enjoy intercourse with friends and visitors at his house, while his children came under that regulation as to the minor points of outward appearance and observances which became their birth and dispositions. The return of Lady Hamilton to her home, desired as it was by her husband's affectionate heart, and proving her to have regained in a measure health and composure of spirit, did not bring to her that faculty of domestic administration in which she had become so deficient: the old want of governance was again felt, and grew habitual. The consequence was deeply and permanently injurious to Hamilton. He had now no regular times for his meals; frequently had no regular meals at all, merely resorting to some cold meat on the sideboard, when hunger obliged him to intermit his scientific labours; and the fire and hot coffee, which in his earlier experience used to await him at night, when in the small hours he desisted from the work of observing, were succeeded by a provision of porter, which dissipated chill by a stimulus less effective, and fraught with inevitable danger. The danger was long unfelt and unrecognised; but the insidious habit gradually gained firmer possession, and produced that relentless craving which in a few years from this time exercised over him an occasional mastery; by which he must himself have felt humiliated, and which his friends could not but notice with a deep sadness. No one ever needed a capable wife more than Hamilton, and this blessing he now ceased to possess. Though he remained to the end of his life an attached husband, as Lady Hamilton remained an attached wife, as well as a good woman, yet from this time her power of influencing him and regulating his habits ceased to operate; that power probably had never been great, but now it had entirely passed away."<sup>2</sup>

<sup>1</sup> See for the "thought-births" p. 343, for Graves' opinion about how Hamilton worked p. 486, for skipping meals p. 350 and for working until dawn p. 404.

<sup>2</sup> See p. 204, [Graves, 1885, pp. 334-335]. For the discussion about Lady Hamilton's "timidity"

Parts of this passage have already been used in this essay, and parts will again be used later, since they have been crucial for various extreme points of view on the Hamiltons. Taking Graves at his word and forgetting about details, this is the passage from which it has been concluded that Lady Hamilton was a lousy housewife; and over the years further worsening Graves' point of view she became slovenly, until in some biographical sketches their house even had degenerated into a pigsty. But it also profoundly coloured Hamilton's memory as some addicted, unhappy and domestically neglected genius.

### Away from home

Although Graves' opinion about what happened can be challenged, it was of course based on true facts; he never shows any tendency to untruthfulness. Lady Hamilton fell ill with her first "illness of a nervous character" at some unknown time in 1839, but that most likely did not happen before November; since halfway August 1840 Helen Eliza was born Lady Hamilton became pregnant in the beginning of November 1839, which could hint at some normal domestic life. Moreover, also in November Hamilton invited Robinson, who just had lost his wife, to come and visit them at the Observatory, writing: "I heard yesterday evening of the loss which you have recently sustained. I shall not pretend to console you. [...] It may, however, tend to produce some intellectual relief, if for some days (as many as you please) you will visit Lady Hamilton and me at this Observatory." The household being Lady Hamilton's "sphere", Hamilton would never have invited him without her consent, and it thus can easily be surmised that until November 1839 nothing was really wrong.

But pregnancies in those times were outright dangerous; many mothers died in childbirth or during the following lying-in period, and even more babies died during or shortly after birth. Lady Hamilton's feeling vulnerable during times in which the country was in a "disturbed state", living in a house "so lonely in situation as the Observatory" while "agrarian crime" was 'sharply increasing', will have been the direct reason that she moved to Dublin in the spring of 1840; and that was the beginning of the period during which, according to Graves, the "relaxation of domestic order" aggravated. Hamilton visited her in her lodgings at Blessington Street and Lady Hamilton was apparently not too ill to receive guests since De Vere visited them there, yet not much is known about that, as little as is known about the daily matters at the Observatory. But realizing that, William Edwin and Archibald being only six and five years old respectively, there was personnel especially for them such as Mrs. Cooney, it can be assumed that it was not entirely bad.

In August 1840 Lady Hamilton came back to give birth to Helen Eliza, and it can safely be assumed that the house was tidy then; due to the high death rates in those days of mothers and babies doctors will have been visiting very regularly, and they would certainly have raised alarms if the house would have looked anything like a pigsty. After Helen Eliza's birth Lady Hamilton, who must have been in a very bad shape since Hamilton was very worried, lived at Scripplestown for some months, presumably in order to breastfeed her baby. And when in the beginning of 1841 Lady Hamilton went to England to live with her sister, Sydney came to 'retrieve affairs'.<sup>3</sup>

see p. 175, ff.. The part in this passage about Hamilton's use of alcohol will not be discussed here; that will be extensively done in chapter 10.

<sup>3</sup> See p. 205, p. 204, p. 210, p. 207.

### A different view on the “relaxation”

Carefully reading the last sentences of Graves' passage, in which he declares Lady Hamilton incapable as a wife for Hamilton, it can be seen that Graves does not write about the household in general, but about her powers to 'govern' her husband: “no one ever needed a capable wife more than Hamilton, and this blessing he now ceased to possess. [...] From this time her power of influencing him and regulating his habits ceased to operate; that power probably had never been great, but now it had entirely passed away.”

This made it worthwhile to see whether the possibility exists that also with the “relaxation of the household” Graves is not alluding to the household in general, but to the fact that Lady Hamilton hereafter failed to persuade Hamilton to follow the daily household routines, or even stopped trying altogether. Searching for an alternative interpretation of the “relaxation”, the sentence about the “minor points of outward appearance and observances which became [the children's] birth and dispositions” came to mind.

This sentence clearly indicating a social class difference, an alternative explanation can be that the servants slowly turned to running the household in the way they were used to at their own homes instead of living up to the standards of the higher social class the Hamiltons belonged to. Still, those “minor points” about the “outward appearance” of the children will hardly have meant that they had been running around dirty, as it will not have been the case with their own children, and it also does not at all show that there was no daily routine; it may have meant that there just was no head of the household to take care of the higher-class details, such as, apparently, the “observances” belonging to the Hamilton children's higher social status.

Another conspicuous sentence in this matter is the one about Hamilton being able, after Sydney came, “occasionally to enjoy intercourse with friends and visitors at his house.” It is perfectly possible that receiving eminent guests was out of the question while Lady Hamilton was not at home, since it must have been very hard and highly organized work to do that in those days, including a very good knowledge of whom should be received in what way exactly; there may not have been servants at the Observatory who were capable thereof.

But that does not say anything about visits from family and nearby friends, visits Graves hardly writes about; the household not being fitted to receive eminent guests certainly implies a degradation of the higher-classness, but that does not have to mean at all that it had deteriorated so badly that not anyone could visit them. Taking the close bonds between the Hamiltons and both the Rathborne families into account, some serious degradation of the household would even be almost unimaginable; both Rathborne sisters were still alive, and they will hardly have turned away if Hamilton would have faced serious domestic problems. He had often dined with them during the times Lady Hamilton was at Bayly Farm taking care of their mother, and during Lady Hamilton's illness the Rathborne sisters and their sister in England took care of her. They surely would have stepped in if Hamilton and their young nephews were suffering under a serious deterioration of their outward qualities of life.

Sydney thus ran the household from the beginning of 1841 until early in January 1842 Lady Hamilton came back home again, and about a year later, in spring 1843, she left the Observatory to take up a teaching job. But according to Graves “the return of Lady Hamilton to her home [...] did not bring to her the faculty of domestic

administration in which she had become so deficient: the old want of governance was again felt, and grew habitual. [...] [Hamilton] had now no regular times for his meals; frequently had no regular meals at all, merely resorting to some cold meat on the sideboard, when hunger obliged him to intermit his scientific labours.”

From Graves’ sentences it cannot be derived what exactly happened with the household after Sydney’s departure early in 1843, and it is entirely unclear whether Graves is indicating that the entire family did not eat regularly, or that Hamilton did not. Again considering whether Graves may have been alluding to Hamilton specifically instead of to the whole family, it can be argued that throughout his biography Graves is completely focused on Hamilton and the many eminent people he befriended; Hamilton’s “private friends” and even his family members were important to Graves when Hamilton was happy with them and they made it possible for him to live a beautiful life by having a positive influence on him, and they were important when they were standing in the way; but for the rest they almost seem to have been mere side effects to Graves who apparently, and probably justified, took into account that also his readers would not be interested in them. Yet many of these people, including the Rathbornes, lived very close by, and they would certainly have been worried if Lady Hamilton was not taking care of her health and that of the children.<sup>4</sup>

It is thus possible to conclude from Graves’ passage that he saw a “relaxation” before Sydney came, but that after her departure in 1843 there was no renewed degradation of the higher-classness of the general household; that the problem in Graves’ eyes was that after Lady Hamilton came back home she was unable to stop Hamilton from periodically working too hard and then eating irregularly, from ordering his papers every now and then, and from drinking beer in the evening. Or, as Graves would have preferred, from drinking alcohol altogether. And he wholeheartedly believed that the consequence of her incapability to ‘govern’ her husband, to ‘influence him and regulate his habits’, “was deeply and permanently injurious to Hamilton.”

Graves’ earlier mentioned daydreams as regards a marriage with Ellen de Vere gave rise to the thought that he saw keeping Hamilton in a sturdy daily regime as the ideal lifestyle, mentioning that she would have been able to “sustain in healthful order and beauty the course of his daily life.” In these daydreams Hamilton probably became very old and discovered even more new mathematics than he already did, became even more famous and revered than he already was; and he would definitely not have had such a bad reputation. And Graves thought that keeping Hamilton to such a regime was something a woman could do if only she was strong enough, which according to him Lady Hamilton was not.<sup>5</sup>

<sup>4</sup> [Graves, 1885, p. 335]. For the “cold meat on the sideboard” see p. 350. According to Graves “His sister Sydney had left the Observatory some time before [June 1843], and in the course of the spring and summer, Hamilton, in answer to inquiries from her wrote to her several letters, intended to facilitate her teaching of Latin to her pupils. [Graves, 1885, p. 414]. She thus most likely left sometime in March.

<sup>5</sup> [Graves, 1885, pp. 334-335], p. 400, p. 115. A funny yet illustrative description of how renowned Hamilton already was in the mid 1830s comes from a letter of Adare’s friend Dan Griffin; Graves writes: “Hamilton and Griffin had met in the South in the autumn of 1834, and when parting each had carried off the great-coat of the other. Dan Griffin writes as follows: – “November 4, 1834. – I have just got your letter, and have your coat. I was at first puzzled to think whose it was, and searched the pockets for documents to lead me to the knowledge of the owner, but all in vain. I then got a note from Adare, to say you had some one’s coat, and suspecting that which I had to be yours, put it on at once, and set about working some problems in Francœur, which I had always before



To conclude the discussion about Graves' passage, it may be noted that Graves describes a by him suspected process which lasted more than three years, from late in 1839 when Lady Hamilton fell ill until in the spring of 1843 she ran the household alone again, and its subsequent consequences, in only two pages, summing up everything connected, suffusing it with his disappointment about his friend's not very 'fortunate memory' and his anger about Lady Hamilton's role in that matter, thereby leaving the impression of a totally degrading household and a very neglected Hamilton. Although he never writes that literally, his leaving this impression open for his readers is one of the veils of darkness he drapes over the biography.

And it is remarkable that, before starting the passage, Graves was apparently confused about the time periods; while introducing the passage he writes: "It cannot be concealed that a great change had come over what had been the happy home of Hamilton: the illness of Lady Hamilton, affecting her mind and spirits, and thus disabling her in every way for her domestic duties, had commenced, as we have seen, in 1839; it caused her early in 1840 to leave the Observatory for lodgings in Dublin, and after the birth of her daughter in the autumn, led to her being domiciled with a sister in England, with whom she remained for about two years." Unlike Hankins he seems not to have realized that after Helen Eliza's birth Lady Hamilton had been at Scripplestown for some months; he moreover thought that she had been in England for about two years which would have meant that she had been away from home for almost three years instead of two. And he seems to have forgotten that Sydney stayed for more than a year after Lady Hamilton's return. Perhaps Graves was more influenced by his emotions when he wrote this passage than by his reason.<sup>6</sup>

It can of course be wondered what Graves' reaction would have been if he would have learned that what, in the long run, actually injured Hamilton's reputation the most is that the here discussed passage is so vividly and convincingly written down that his opinion takes complete predominance over the details. Together with his certainty about his view on what happened exactly it resulted in an image of Hamilton of which it can easily be assumed that it was not at all what he intended to achieve. His biography doubtlessly having laid to rest much of the contemporary gossip, he seems not to have anticipated how many years later, and how far away from Dublin, parts of his biography would still be quoted and retold. And that people are prone to retell the extravagant parts of his story, instead of the many details of the careful description of his friend which he so intellectually laid down.

### **Not such a bad household after all**

There are many indications in Graves' biography as to how the household was generally run from which it is obvious that it was, in any case, run at a good basic level. Indeed, Hamilton did not always sit at the family dinner table, yet throughout the biography breakfasts are mentioned which he did attend, there were family prayers with the assembled household, there were official and scientific visits to the Observatory and open days for the public, and there were visits from family and friends, both private and eminent.

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found impossible to understand, and came to the solution with such exceeding facility that I knew the coat at once to be yours! I am sure I shall miss it very much, and must certainly send to you for it, if I should again meet with mathematical difficulties.'" [Graves, 1885, pp. 138-139].

<sup>6</sup> [Graves, 1882, p. iv], [Graves, 1885, p. 334]

And the Hamiltons doubtlessly wore neat clothing when visiting weddings, funerals and the Queen; indeed, the Hamiltons' granddaughter-in-law said about Lady Hamilton that she was "fashionable rather than intellectual." Graves, who hardly mentions Lady Hamilton in their later years, does give a letter in which her concern for her family can be seen; in 1854 Hamilton wrote to her from Liverpool, apparently as a continuation of the joke about Abbé Moigno of whom he had said that he was, instead of an abstract idea, a "very pleasant body", that Archibald promised her not to become a "damp unpleasant body" if he could help it. Lady Hamilton thus clearly cared about appearances, and it is quite unimaginable that such a woman would allow her family to live in a dirty house.<sup>7</sup>

Following on the foregoing discussion, and knowing that in the end Lady Hamilton did not succeed in convincing her husband of the necessities of following the household rules and ordering his papers, it can be wondered whether she gave up at some earlier time, or perhaps did not interfere at all with how he wanted to work. But she surely did not allow her husband to leave his papers strewn about the rest of the house as Wayman suggested; instead of having to clear out, in 1852, the dining-room in order to give the 26<sup>th</sup> Examination Dinner, as he writes, Hamilton mentioned that his library had to be cleared out; the dinner was to be given there.

Keeping Hamilton to a sturdy regime, or at least make him order the papers in his library, can also not have been as simple as Graves seems to assume. Being a strong woman would likely not have helped; Hamilton was not one to easily comply to rules which were imposed on him by someone else. This personality trait could already be seen when Hamilton was only four years old and aunt Sydney wrote to his mother: "he is not a young gentleman to be frightened into good behaviour." Perhaps the problem thus was that he simply did not care about the chaos in his library; in his letters he regularly referred to papers being out of sight, but only a few times he mentioned to have been clearing out, in the sense of burning papers. And that was quite a work; in December 1841 Hamilton wrote to Adare while waiting for his wife to return from England: "The partial sorting of my great mass of manuscripts was alone sufficient to occupy me during a good part of last autumn." That also seems to have been the last time he would free so much time for clearing out; after his wife came back he was able to work on his mathematics again.

Together with De Morgan he even laughed about people such as Airy, who was, apparently, very orderly; in 1852 De Morgan wrote: "Airy is the prince of methodists. You and I should look very small before him. My theory is that when he tries his pen on blotting-paper he makes a duplicate by the pressing machine, files, and indexes it. When he wanted communications of advice and suggestion about the altitude and azimuth instrument, I sent him an edict from Jupiter, warning him not to follow his (Jupiter's) daughter about. It was read to the visitors, and filed with the rest." To which Hamilton reacted: "Your story about Airy is capital."<sup>8</sup>

In the end it was not the order in his library, or even the regularity of his daily life, which was basic to Hamilton's happiness and his ability to work, but Lady Hamilton's closeness. In 1841, the year that she was in England, Hamilton missed her so much that he could hardly work despite Sydney's excellent household skills, yet he

<sup>7</sup> See p. 359, p. 152, p. 219.

<sup>8</sup> [Wayman, 1987, p. 65], p. 27, [Graves, 1889, p. 381]. See for Hamilton's untidiness p. 357, for the Examination Dinners p. 307, and for clearing out the library p. 358.

was working extremely hard in the 'relaxed' household his wife provided. But Graves was apparently more concerned with longer life and good reputations than with beautiful mathematics.

### A not very Victorian view on women

But presumably not only Graves was of the opinion that Lady Hamilton should have governed her husband better, stopping him from living his irregular life; it is certainly possible that it was a substantial part of the gossip about the Hamiltons. In those times, where obedience to her husband was part of a wife's wedding vows while obedience to her was not in his, the roles for men and women were very strict, and people may have believed, as Graves did, that Lady Hamilton should have kept a well-regulated household which included her husband no matter what. And that if she did not do that, Hamilton should have forced her into it; something he would never do.

In principle, Hamilton was a man of his time, which can be seen from his remark that where "the intellectual and theoretical part of religion" was concerned he could not "pretend to be so free from the pride of intellect and of sex as to be likely to listen with profit to direct instruction from a wife." But he seems not to have been by far as strict as other men; before their marriage Hamilton had written to his wife-to-be that he agreed with "Miss Edgeworth that a wife ought not to be a slave, [and] a man who could desire to have a wife on such terms would not be worthy to have one at all."

He had been proud of her when she had openly refused to become "patient Griselda" and had written that he would be "quite content that we should have more than one will between us;" as mentioned earlier, this sounds as if she was used to speak her mind. And indeed, Hankins mentions for instance the "petulant and cross" letter which she wrote to him when she was at Bayly Farm in 1834: she was petulant about the fact that he took the "troublesome office" of Secretary for the next meeting of the British Association, and she was cross about him not having franked his letter. But for him her letter was no reason not to be happy to see her again.

Hamilton thus seems to have maintained a more positive view towards women than many men in his days, and when in 1837 he became president of the Royal Irish Academy, he sought Maria Edgeworth's advice on the subject of "Polite Literature" in Ireland. According to the *Oxford Dictionary of National Biography*, in her "lengthy reply [on the 6<sup>th</sup> of January 1838] she recommended the admission of women to the academy's evening parties, among other reforms." Graves on the other hand mentions that Hamilton received her reply "in her usual cordial tone, and containing several suggestions too minute to be here reproduced; one general precept, serviceable for all Chairmen, I give as strongly evidencing her sound practical judgment and her brave candour: "avoid all competition, speak less than others; and hold the balance, and you will have no occasion for the rod.""<sup>9</sup>

In his role as president of the Academy, on the 6<sup>th</sup> of June 1842 Hamilton wrote to Maria Edgeworth: "I hope [it] will gratify you, that at the Meeting of Council just concluded it was proposed and unanimously resolved to recommend to the Royal Irish Academy to elect you an Honorary Member. Though you may naturally be tired

<sup>9</sup> See p. 140, p. 150, p. 179. Graves sounds somewhat less enthusiastic about these roles for women than Hamilton. Yet, in 1892 he did write a twelve-paged 'Pamphlet on Education': *Suggestions on the subject of university degrees for women*. Dublin: Printed at the University Press.

of distinctions, this one will probably be gratifying to your patriotic feelings; and it is right to mention that there are only two ladies on our list of Honorary Members namely, Mrs. Somerville [(1780-1872)] and Miss Herschel [(1750-1848)] (the Aunt of Sir John). ... I trust to have soon the pleasure and honour of signing your diploma as President. The other signature will be that of the Secretary, Professor MacCullagh, to whom belongs the merit of having made the motion in the Council to-day.” Maria Edgeworth was indeed elected an honorary member on the 13<sup>th</sup> of June 1842.<sup>10</sup>

Again according to the *Oxford Dictionary of National Biography* Mary Fairfax Somerville, science writer and mathematics expositor, was elected to honorary membership of the Royal Irish Academy in 1834, and according to Graves that was decided following a proposal by Hamilton. Also for Caroline Herschel Hamilton claimed, in 1838, “the distinction of Honorary Membership, on account of those services to her brother, Sir William Herschel, and to Astronomy.” Graves adds that in these instances “he gratified [...] that chivalrous feeling of respect for the female sex which with him was habitual.”

And Hamilton even knew how to be “some sort of nurse”, something he must have done well since Lady Hamilton called him “the sweetest nursetender in the world.” Perhaps this was not too strange though, nursing seems to have been a profession for both men and women, and having been nursed himself he probably knew what to do. Unless “being a sweet nursetender” just meant sitting next to her bed and dipping her hot forehead with cold cloths brought in by someone from the personnel, or reading out loud to her, which would of course hardly count as nurse tending. But which are, nevertheless, very sweet things to do.<sup>11</sup>

## 9.2 An inspired teacher

Having found, in 1843, his quaternions, Hamilton started to work very hard, very focused, and very solitary. One of the reasons he worked so hard, especially while writing his books on quaternions, seems to have been that he believed that he could explain anything to anyone; that if he would develop and explain his quaternions well enough, everyone would acknowledge their place at the heart of physics, if not their sheer beauty, thereby giving him his “imperishable name”. He clearly had not expected that his *Lectures* would be so praised, yet so few copies sold.<sup>12</sup>

Hamilton often tried to explain beautiful science to people, but he sometimes overestimated the level of knowledge of the people he was talking to; as mentioned earlier, Graves writes about Hamilton: “A peculiar charm of Hamilton [...] was a

<sup>10</sup> [Graves, 1885, pp. 384-385]. The *Oxford Dictionary of National Biography*. ‘Edgeworth, Maria (1768-1849), novelist and educationist’ by W. J. McCormack. Oxford University Press 2004-1.

<sup>11</sup> [Graves, 1885, p. 280], p. 170, p. 226, p. 179, p. 95

<sup>12</sup> It is unclear from the biographies how many copies were sold of the *Lectures*; not any copy was sold in Dublin, [Hankins, 1980, p. 359], but copies were sold in England, Scotland and North America yet the total numbers were small. Both Hamilton’s books were regarded as daunting and perhaps, if he would have dared to split the *Elements* as Hart had suggested, see p. 249, that could have been different; one of the later inhabitants of Dunsink Observatory, Charles Jasper Joly (1864-1906), who studied the quaternions, wrote in the preface of his *A Manual of Quaternions*: “A mathematician, whose time is limited, is frightened at the magnitude of Hamilton’s bulky tomes, although a closer acquaintance with the *Elements* would reveal the admirable lucidity and the logical completeness of that wonderful book.” [Wayman, 1987, p. 173]. Joly, C.J. (1905), *A Manual of Quaternions*. London: MacMillan and Co. <https://archive.org/details/manualofquaterni00jolyoft>.

boyish cheerfulness [...]; smiles and witticisms gleamed and bubbled on the surface of the deepest current of discussion; and this rendered his oral teaching delightful, even when, as often happened, it became too deep for the capacity of his hearer."

This overestimation seems to have happened mainly when Hamilton was explaining his ideas to fellow scientists; an example hereof may be the earlier mentioned comment by the *Athenæum* to "some remarks" about cones of the third order he had read to the British Association in 1857: "It would be impossible to give the general reader any clear idea of this abstruse paper." From the continuation it can be seen that his oral explanations usually appeared to be very lucid even if they were not; Mr. Henry J. Smith of Oxford had shown the "soundness of the principles" of that paper, "explaining in fully as lucid a manner as that of Sir W. Hamilton (who makes everyone that hears him for the moment think that he clearly comprehends the whole subject)," having in some examples "arrived at precisely the same numerical results."

But Hamilton was actually good at explaining orally when he did not expect his hearers to be at his level. Having made a general remark about his "oral teaching," in the above quoted 1829 passage Graves writes about Hamilton's explaining to himself: "I could [...] feel the more deeply how gracious was his nature, when, more as a companion than a teacher, he devoted himself, in the hours we spent together, to giving me wide and clear views in science and in metaphysics; listened patiently to every difficulty, and carefully disposed of it; and gladly welcomed any reply that showed something more than mere recipiency, and encouraged the effort of the learner to make independent advances." It will have been this ability, combined with his apparent lucidity, which led Lady Campbell to remark, "You have [a] great charm, which is, that you make me imagine that I understand your ideas, and that flatters my vanity."

That Hamilton also could explain at a very basic level can be read in an 1836 letter to Adare: "As to my own employments, I have been carrying on various applications of my method of Principal Functions, to Dynamics chiefly, in a huge blank book which I found lying idle here – far more colossal than any of those I used to write in – and have filled about one hundred pages of it, or more, with these private exertations, which I describe to Mrs. Bayly as the milk-pans set in the dairy, for the cream to gather on them by degrees, and afterwards to be skimmed at leisure. But the cream that I propose to set out in the market-place next is to be a separate work."<sup>13</sup>

### Lecturing on Astronomy

And there was something Hamilton was extremely good at; his annual lectures on astronomy were very highly praised. In 1869 Ingleby wrote about them: "It is admitted on all hands that Hamilton's professional lectures on astronomy, delivered to the college classes, were the best ever heard within the walls of Trinity College, uniting in themselves consecutive thinking, logical statement, sound philosophy, exact science, moral truth, and splendid poetical imagination – all blending together so thoroughly as to form the highest and most attractive intellectual treat."

Graves describes how Hamilton's introductory lectures attracted many more people than his students alone. "When he spoke as a Lecturer on the great subject with

<sup>13</sup> See p. 81, p. 232, p. 182, p. 188, [Graves, 1885, p. 177]. For "some remarks" see p. 512 of <https://archive.org/details/proceedingsofroy06dubl>.

which he had been so long conversant, it was plain to see that he was absorbed by a reverential consideration of the grandeur of Astronomy, as a science not more connected with vastness in its material aspect than with the ideas, so dear to him, of intellectual and spiritual elevation, of actual and imaginative beauty, of truth sublimely severe and comprehensive. As he poured out in his sonorous tones his thoughts thus blending Poetry and Science, he appeared, as I have said, absorbed in awed and delighted contemplation of the truths he had the solemn privilege of enouncing; there was no apparent consciousness of his own personality, he was a worshipper revealing the perfections of the object of his worship. [...]

"The first lecture in the annual series [given twice a week during the whole of Michaelmas term] was usually employed by him in communicating comprehensive views of the relations of Astronomy to Physical Science in general, to Metaphysics, and to all the regions of thought which it touched or was associated with. In these introductory lectures he was wont to indulge himself in refined and eloquent disquisition, in poetic language, quotation and allusion, in tracing the history of the development of the science, and in marking out the achievements of its great promoters, from its birth in the far east, from Ptolemy and Hipparchus to Copernicus and Galileo, to Kepler and Newton, to Laplace and Lagrange. They accordingly attracted crowded audiences, in which were to be seen not alone his class of Undergraduates but Fellows and Professors and literary men, with a sprinkling in addition of ladies, at that time a novelty in a College lecture-room. The subsequent lectures of the course were altogether different in style, being rigorously mathematical and demonstrative."<sup>14</sup>

Having given his 'Lectures on Astronomy' for the first time in 1830, there must have been much talk about the lectures since they almost instantaneously became renowned; after the first lecture of his second course on Astronomy in 1831 Hamilton wrote to Lady Dunraven, Adare's mother: "Yesterday I began, and had a brilliant audience, poetry and science being present by their representatives, that is, poetry by Mrs. Hemans and Stephen De Vere (1812-1904); and science by Captain Sabine and Adare." And about 1832 Graves writes: "On the 8th of November Hamilton delivered the Introductory Lecture of his professorial course in the room over the vestibule of the College Dining Hall. It was filled to overflowing."<sup>15</sup>

Yet Hamilton did not forget that his students were the most important; Graves continues: "Towards the youthful audience who surrounded him he took the attitude not so much of a superior authority and a teacher as of a worshipper desirous that other intelligent spirits should take fire from the flame of his devotion; of a fellow-student desirous to win those who heard him to be as earnest students as himself. The reverence said by the Roman poet to be due to boys was by him habitually paid to the young disciples of Science who resorted to his lecture-room."<sup>16</sup>

<sup>14</sup> [Ingleby, 1869, p. 165], p. 446, [Graves, 1882, pp. 497-498]

<sup>15</sup> [Graves, 1882, p. 485], [Graves, 1882, p. 639]

<sup>16</sup> [Graves, 1882, pp. 497]. Decimus Junius Juvenalis (ca 55- ca 130) wrote in Satire XIV, lines 44-49, as translated by Martin Madan (1726-1790): "Nothing filthy, to be said, or seen, should touch these thresholds, Within which is a boy. Far from hence, from thence the girls Of bawds, and the songs of the nightly parasite: The greatest reverence is due to a boy. If any base thing You go about, do not despise the years of a boy, But let your infant son hinder you about to sin." Madan explains: 44. Filthy.] Indecent, obscene. – Should touch, &c.] Should approach those doors, where there are children, lest they be corrupted. Therefore – 45. Far from hence, &c.] Hence far away, begone; a form of speech made use of at religious solemnities, in order to hinder the approach of the profane. [...] 45-6. Girls of bawds.] The common prostitutes, who are kept by common panders, or pimps,



The examinations must have been hard though; Tait writes in 1866: “his examination papers were the despair of the ‘crammers’”. In them there was such an intense novelty and originality, that the experience of forty years could give no inkling of what was coming; the venerable crammers gave up the attempt; and the victory was won by the real intellect of the deserving candidate, not, as it too often is, by the adventitious supply of old material forced into the mere memory of the crammed.”<sup>17</sup>

But it perhaps slightly outgrew him; in December 1834 Hamilton wrote to uncle James in a letter not given by Graves but by Wayman: “I had so little time to write during my last lectures, and happened to see so little of you during your last visit to Dublin, that I have got a frank from Lord Dunalley to fill up more at leisure now. As to the lectures, they continue to be well attended, and the ladies were constant to the last, except one extra day upon eclipses, which I had warned them would be particularly dry and mathematical. But, in an interview which I happened to have since with one of the Senior Fellows, I learned that he had been plotting with the Provost how to prevent them coming in the future; and that they could hit upon no better plan than to station a Porter at the foot of the stairs with orders of exclusion from the Board. This scheme they profess to say is provisional on my not protesting against it, which I have no disposition to do, for it will help to simplify my own position, which is at present rather complicated by the presence of such different classes of auditors. The lecture on eclipses to which I alluded a while ago, and which was delivered in a more mathematical style than usual to a party of eight or nine students, was one far pleasanter to myself than those attended by a miscellaneous crowd. But I doubt much the policy of the Board in taking so unpopular a step in these days of popularisation; and question whether they will ever procure in this way a better attendance of students.”

Hamilton’s lectures on astronomy ended in their publicly comprehensible form in 1841; in December Hamilton wrote to Adare while giving a sort of overview of the past year in which Lady Hamilton was in England, “[In the autumn] came my Lectures – or at least I thought that they were coming – and as usual I spent some time in preparing for them, and even delivered an Introductory Address; when, behold! it turned out that a recent change in the College Course will make summer in future the proper season for me to lecture on astronomy. This change will also alter, or tend to alter, the style and matter of my lectures, making them more mathematical and less metaphysical (probably) than they have hitherto been; because the Junior Sophisters will not henceforth commence the study of physics with astronomy, but will have been prepared by a previous training in mechanics and optics.”<sup>18</sup>

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for lewd purposes. 46. The nightly parasite.] The parasites, who frequently attended at the tables of great men, used to divert them with lewd and obscene songs, and for this purpose would sit up all night long. 47. Greatest reverence &c.] “People should keep the strictest guard over their words and actions, in the presence of boys; they cannot be under too much awe, nor shew too great a reverence for decency, when in their presence.” 47-8. You go about, &c.] If you intend, or purpose, or set about, to do what is wrong, don’t say, “There’s nobody here but my young son, I don’t mind him, and he is too young to mind me:” – rather say, “My little boy is here, I will not hurt his mind by making him a witness of what I purposed to do, therefore I will not do it before him.” Madan, M. (1789), *A New and Literal Translation of Juvenal and Persius; with Copious Explanatory Notes, by which These Difficult Satirists are Rendered Easy and Familiar to the Reader*. Volume II. London: Printed for the Editor. <https://archive.org/details/newliteraltransl02juveiala>.

<sup>17</sup> [Tait, 1866, pp. 22-23]

<sup>18</sup> [Wayman, 1987, p. 301], [Graves, 1885, p. 355]



## Uncle James

It is possible that uncle James had a hand in Hamilton's attitude towards women; in connection to the Lectures he wrote in January 1834, sounding rather annoyed: "By-the-bye, as I am spell-barred hitherto from the Observatory, your present inmates seem spell-bound [...]. They were much gratified by your Lecture on Optics, &c., before your Astronomical Lecture began, and still more by your rehearsal of the latter behind the scenes, though not admitted to the benches of the theatre. For it seems of your last campaign one great boast and achievement has been routing the fairer part of your audience from the field, and that in Halls founded by the Virgin Queen. Does not her shade exagitate your pillow "with nightly fears"? And did not her memory, like the gorgon terror of the ideal power of which she seemed the incarnation, petrify your accents as they fell from the Professorial Chair? Excite no jealousies, or allay them as you can; but I reclaim against a yearly sacrifice of the fairest female minds to the minotaur of monachism, and its antipathies and prejudices."

And according to Wayman, it was likely also uncle James who made the following note at the head of Hamilton's aforementioned 1834 letter: "The allusion in this and a former letter to Ladies refers to my objecting last year to his repelling their attendance or that of unlearned auditors generally – in compliance with what I thought rather monkish antipathies and jealousies on the part of the P[rovost]."<sup>19</sup>

It is not entirely clear whether or not women were allowed to attend more than the first introductory lecture in 1833. Uncle James had already been displeased in the beginning of 1834, thus about a year before Hamilton's letter; perhaps Hamilton had also "barred" women from the 'too mathematical parts' of the lectures in 1833. That would not contradict the foregoing description about his for those times rather positive view on women though, clearly enjoying talking to women about the beautiful, or poetical, branch of science which astronomy is, Hamilton did make a distinction between men and women as regards mathematics; he does not at all seem to have felt comfortable about lecturing women on pure mathematics. Which may have been one of the reasons not to protest against the Provost's plans.<sup>20</sup>

## Adapting to his audience

Hamilton was, apparently, willing to adapt his style of lecturing to his audience; from his letter to uncle James it can be inferred that he adapted his lectures to the members of the public, even to an extent that it took him a lot of effort while he just could have given his lectures as he judged his own students would benefit from, and then wait and see which members of the public would remain to attend the lectures. And even though he admitted that he would not have protested against preventing 'the ladies' to attend the lectures altogether, and perhaps even prevented women from some of them in 1833 already, in 1859 he did give a lecture on astronomy at Fulneck School to "the youthful pupils of both sexes," and in an unknown year to the girls of Mercer's School in Castleknock.<sup>21</sup>

<sup>19</sup> [Graves, 1885, p. 73], [Wayman, 1987, p. 302]

<sup>20</sup> But also uncle James was not 'emancipated'; it can be seen that even when he defended the rights of the "ladies" to attend the lectures, he seems to have been thinking mainly about them being entertained in a time where there were no movies or television or the internet; it does not sound as if he was fighting for the rights of women to study science like men.

<sup>21</sup> See p. 20.

Hamilton rewrote his annual lectures every year; before writing an Introductory Lecture for May 1843 he noted in a memorandum: "Principles which have been intellectually fixed in my own mind must give some corresponding fixity to my teaching; sentences, passages may be repeated, old trains of thought followed out again, but I am far from going through a cold habitual process; I feel an always new desire to use the always new opportunity of being of what use I can to a new class of fellow-members of this University." He clearly was a very involved teacher.<sup>22</sup>

And there are more stories about Hamilton explaining something very well, again adapting to whom he was explaining to. The fact that the quaternion system was not commutative,  $ij \neq ji$ , was something very hard to accept then, and in 1853 Hamilton wrote to M. O'Sullivan about a visit to Parsonstown, presumably his 1848 visit: "You will I hope bear with me if I say, that it required a certain capital of scientific reputation, amassed in former years, to make it other than dangerously imprudent to hazard the publication of [the *Lectures*] which has, although at bottom quite conservative, a highly revolutionary air. It was a part of the ordeal through which I had to pass, an episode in the battle of life, to know that even candid and friendly people secretly, or, as it might happen, openly, censured or ridiculed me, for what appeared to them my monstrous innovations. One morning that I had the honour to breakfast at Parsonstown, some years ago, with Lord and Lady Rosse, no other guest being present, Lord Rosse said to his Lady, "Sir William Hamilton wants to persuade us that three times four and four times three are not the same." "No, Lady Rosse," said I, "what I do assert I can prove to you in a moment." So, by taking from my pocket a penknife and partly opening it in a horizontal posture (i.e. handle and blade horizontal), whereof for the moment we may agree to call the handle  $i$ , and the blade  $j$ , I showed that by operating on  $j$  with  $i$ , by turning the blade through a quadrant with a screwing (i.e. from left to right) motion, that blade was brought to point upward; whereas, on the contrary, when I operated on  $i$  with  $j$ , or used the blade as the axis of a screwing process, the handle was made to point downwards, thus justifying, in the sense in which I employ it, my fundamental and (as it has seemed to many persons) paradoxical formula,  $ij = -ji$ . You will have the goodness not to mention the names of my noble host and hostess, if you shall ever think the anecdote worth repeating."<sup>23</sup>

Hamilton's fame entailed being asked many questions by the public and he seems to have gone to great lengths to answer them. For instance, when Donati's comet appeared in 1858, according to Graves "much was he beset by inquiries on this subject from amateur astronomers," and Hamilton corresponded with many of them, among whom, at the time of this comet, the earlier mentioned Mrs. Mary Ward. The same happened with regards to mathematics; Charles Graves wrote about Hamilton after

<sup>22</sup> [Graves, 1885, p. 413]

<sup>23</sup> See p. 286, [Graves, 1885, pp. 683-684]. In the main text of his biography Graves had mentioned a possible visit to Parsonstown in February 1845, but in the index he remarked that the letter indicating such a visit was dated wrongly, see [Graves, 1885, p. 485] and [Graves, 1885, p. 717]. Accepting the quaternions must have been hard indeed; in 1852 Hamilton wrote to De Morgan: "I am not conscious of being on terms of even the slightest unkindness with a single Fellow of T.C.D., and with several of them I am on a friendly and indeed affectionate footing. To be sure, many of them ridiculed me about the quaternions, and Charles Graves once burst out with the exclamation, in my presence: "It is astonishing what a prejudice exists against the quaternions, and that among people who confess that they know nothing of the subject!" "Would it not be more discouraging," I replied, "if the same prejudice continued among those who are acquainted with it?"" [Graves, 1889, p. 335].

his death: "Finding almost always that it was hopeless to convince the mathematical fanatic of the unsoundness of any of his premises, he would take pains to show him that the results he obtained were false in particular instances. [This] leads me to notice a feature in his character which deserves to be recorded. From the lofty height of his genius and learning he was accustomed to stoop with the utmost readiness to hold converse with inferior minds. Many of his visitors at the Observatory, and the members of the class who attended his lectures in Trinity College, can recall instances of his patience and good-nature in answering their questions, and clearing up the difficulties which beset them in their elementary studies of mathematics and natural philosophy."<sup>24</sup>

### Digression and the *Lectures*

From the foregoing it can be concluded that Hamilton was a master in lecturing on science and metaphysics as he did in the astronomy lectures, and he was very able to explain basic notions, as he did to Lady Rosse and the visitors at the Observatory. And about Hamilton as a mathematician and the development of the quaternions Tait writes in his 1866 article: "There is no doubt that, in the case of quaternions at least, he sought mainly to improve his methods, and almost studiously avoided the treatment of new subjects; and the result is, that in his hands alone the development attained is extraordinary." But being a good teacher and avoiding new subjects was apparently not enough to prevent especially the writing of the *Lectures* to get out of hand.

There was indeed a difference between the writing of the *Lectures* and the *Elements*. The latter was set up as a 'complete and satisfactory treatise'; Hamilton made a plan beforehand and more or less kept to the plan, yet as Graves mentions, he severely underestimated the time it would take to write it all down. The *Lectures* on the other hand was originally intended to be a text book for his students, but Hamilton seems to have focused too much on details, thereby digressing along the way.

Tait writes about Hamilton's attention to detail: "It was one of the peculiar characteristics of his mind, never to be satisfied with a general understanding of a question, he pursued it until he knew it in all its details." But however useful for Hamilton's mathematics, it had practical consequences which are beautifully illustrated in a story, as retold by Graves. "Early in 1866 Mr. W.E. Hamilton furnished me with some memoranda made by him respecting his father's habits of work and traits of character, the substance of which I here reproduce as the truthful notes of an observer possessed of special advantages. [...] Mr. Hamilton notes that his father was fond of teaching, partly from a genuine desire to impart knowledge to those whom he happened to address, [...] <sup>25</sup> but not less from a felt necessity of "throwing his mind into a didactic attitude," in order that he might put the result of laborious analysis into the best form for communication. I transcribe here Mr. Hamilton's graphic description of the processes he observed: – "It was his habit invariably before making a communication to the Royal Irish Academy to lecture an audience, fit, I hope, but few, consisting generally of myself and Thompson, the assistant, although the ladies

<sup>24</sup> [Graves, 1889, p. 104], footnote 54 on p. 235, [Graves, 1889, pp. 221-222]

<sup>25</sup> Graves adds here: "who, however, were often incapable of receiving it." But next to that having been discussed already, it seems to have been his opinion, not that of William Edwin.

were sometimes present.<sup>26</sup> This was not a mere rehearsal, for the actual wording in the R.I. A. might be very different, but it was the throwing of his own mind into the didactic attitude, and the satisfying himself that he had done so. In fact he generally passed through three stages: 1. That of mathematical investigation; 2. That of final polishing; 3. That of throwing his own mind into the didactic attitude. I generally knew when 3 was coming, and anticipated it by bringing the black-board, taking care to have plenty of chalk ready. Well, then, he generally began by a few preliminary scribbles on the board, speaking to himself and rubbing out the chalk marks. Then followed a lecture, in which it was very curious to watch his tendency to digress. He would say, with a sudden start, "Yes – wait – stop, I see another way of proving this; let  $\phi \log \tan \theta = \&c.$ , ... – but, however, this will keep – to resume,  $x = \&c.$  Well, now we have killed off the first part of the subject." So that in "lecturing" he suppressed the digressive tendency, but in conversation he yielded to it, and used often to say, "Well, what was I speaking of just before?" – "Of,  $\&c. \&c.$ " – Sir W., "no – go still further back." It was very amusing to watch Thompson – whose ideas moved slowly, and who could only go a very small way in the subject – standing by, spectacled and owlsh, and chiming in with an occasional "I see." Sometimes, however, my father threw a Parthian dart at him,<sup>27</sup> such as "Just recapitulate the last six equations"; when it generally happened that Spica Virginis or a Lyræ<sup>28</sup> required immediate attention. I will add that the effort to throw his mind into the didactic attitude did not always succeed. Sometimes he had got to a certain stage in the lecture when some new track of discovery suggested itself, and he made a pause – noted sufficient to recover it afterwards – and went on with the lecture: so that the didactic stage required a conscious effort in suppressing the inventive tendency for the time."<sup>29</sup>

The fact that Hamilton thus strongly tended to digress, suppressing it during his lectures but yielding to it when in a conversation, seems to have severely influenced the writing of the *Lectures*. Probably soon forgetting that the book was intended for students and starting to write for the scientific community, thereby again overestimating his fellow scientists, he may have been less willing to suppress for them both his "digressive" and "inventive" tendencies than he would have been for his students. And even though the digression during the writing of the *Lectures* was not such as to go into new subjects as Tait mentions, Hamilton indeed kept working towards the one goal of developing the system of quaternions, constantly inventing new methods during the writing since he started on the book while still being deep within the development process.<sup>30</sup>

<sup>26</sup> The Ladies will have been Lady Hamilton and Helen Eliza, and perhaps Mrs. Comerford together with other unnamed women at the Observatory. And also their relatives from Trim enjoyed these 'try-outs', see p. 339.

<sup>27</sup> A Parthian tactic was to shoot, while riding their horses, at targets behind them.

<sup>28</sup> Both are stars with periodically varying brightness. Spica consists of two stars in a very close orbit, of which one is a variable star; the Lyræ is a class of variable stars with periods of a day or less, the class being named after the brightest one, RR Lyræ, a star in the constellation Lyra.

<sup>29</sup> [Tait, 1866, pp. 36, 38], p. 236, p. 2, [Graves, 1889, pp. 239-241]

<sup>30</sup> In 1847, shortly before starting on the *Lectures*, Hamilton wrote to De Morgan: "I have the strongest hopes that the Quaternion Calculus will simplify physical astronomy, especially in all those departments in which spherical trigonometry is now employed. But as yet I don't pretend to have done more than to have proved that my Calculus does really take hold of the subject: that it is adequate to work out new and true expressions for the perturbations of the moon and planets which agree with known results, when translated into the known forms of language. Whether a sufficient compensation is afforded for the trouble of acquiring some new habits of calculation, and giving up

Thus concluding that the way in which Hamilton wrote the *Lectures* was not exemplary for his teaching, that he actually was a good and very involved teacher and able to adapt to his public, it can be questioned why he could not explain optics to his wife, as he tried in 1832. Graves had written that “in consequence of her not having arrived at a final decision [about his marriage proposal] their intercourse was subjected by her to close restriction. This restriction did not prevent his endeavour, as I find from one of his notes, to initiate her into the Science of Optics, an endeavour carried on in that happy faith through which he habitually trusted that he could make plain to any human being the abstrusest truths.” Hamilton did not succeed although she will have been interested as was supposed earlier, but trying to really explain optics to someone who had no scientific training at all was perhaps too much to ask even from him.<sup>31</sup> Moreover, although the story of how he could explain non-commutativity to Lord and Lady Rosse in a very visual way, and likewise explain his working method to Mrs. Bayly, is indicative of Hamilton’s potential to explain indeed at a very fundamental level, it also shows that no overall visual explanation can go very deep, even when explained to an otherwise bright person. And it therefore does not say anything about Helen Bayly’s intellect; optics is no simple subject.

### 9.3 Incompliability and unstoppableity

Although Hamilton thus had a for his time rather positive view on women, his statement that he could “not pretend to be so free from the pride of intellect and of sex as to be likely to listen with profit to direct instruction from a wife” must also not be underestimated; although he made the remark while speaking of “the intellectual and theoretical part of religion” and not of “the more vital part which concerns the heart and will” where she would have as much influence as he and where he felt that he needed “much, very much, instruction and improvement and discipline” for, his unlikeliness to listen to direct instruction from his wife will also have included the way he worked; occasionally skipping dinners and working through the night.

He had expected, two months before their marriage in 1833, “in prose and practice [...] to come in often for advice and scolding.” But at the same time he seems to have expected to be able, or to be allowed by his wife since the household was her “sphere”, to work just as he thought he should since already a day after mentioning the “advice and scolding” he wrote to his wife-to-be: “I was up almost the whole of Monday night, in the pains or pleasures of thought-birth, mathematical views springing up in almost oppressive variety: so that even when I went to bed I could scarcely sleep, and was greatly exhausted the next morning.” He did not make any remark about how that would be different after their marriage; thought-birth like this would not be interrupted, if not for sleep, than certainly not for dinner.

And actually sounding rather satisfied with the “pains and pleasures of thought-birth,” it is easy to imagine that with the “advice and scolding” Hamilton was not primarily alluding to practicalities but to a possible neglect; he may have been afraid

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some old ones, I am not an impartial, and therefore not a competent judge. But it is my business to multiply the materials for others to form their judgment upon; and this, if it be an arduous, is also a delightful task. The freshness which old subjects receive, at least to me, from my new view of them, is a charm sufficient to repay me for any amount of labour.” [Graves, 1889, p. 271].

<sup>31</sup> [Graves, 1885, p. 14], p. 141, p. 152

that if he would be immersed in “thought-birth” too often for too long she would become unhappy. It was suggested earlier that he may have realized that that could be a difficult subject in a marriage, and that it was a reason to choose a truthful wife; to be certain that if she did not complain, there would not be a problem.

Graves saw Hamilton’s being allowed by his wife to live irregularly, together with the fact that after he had worked very late she did not take care of him in the sense of making coffee or something, as the main reason that Hamilton started drinking beer in the evening. Graves therewith implies that Hamilton would not make coffee himself, yet it is not known from the biography whether Hamilton did not want to make coffee, or that he did not know how to do that, or even if he ever came into the kitchen. As little as that is, by the way, known about Lady Hamilton; according to Wayman Mrs. Mary Whittaker Boyd (ca 1881- ..), the wife of one of Hamilton’s successors, Edward Whittaker, “was only down in the kitchen about twice.”<sup>32</sup>

But it is known that Hamilton knew how to shop; in a letter to Eliza he described a long walk when he was in Liverpool in 1832: “I left Lord Adare and Francis Goold to breakfast and amuse themselves, while I set out to walk to the Miss Lawrences. They could not at the hotel direct me to their house, so I thought I would try the Post Office for information: and there, though I was too early to find the office open, I met a very civil groom (as I took him to be), who was also waiting for the opening of the office, and who knew where the Miss Lawrences lived, and gave me some useful directions. He thought they were only about three miles from Liverpool, which agreed with my faint recollection of the distance, and determined me to walk, though for this I had perhaps a better reason in the cars not being yet on the stand. However if you remind me of the hundred excuses for not ringing the bells of a city in a royal progress, of which the first was that they had no bells to ring, I shall answer that I might have waited a little while, and probably would have done so, if I had known that the distance was really six miles instead of three. As it was, between many goings astray and disappointments as to the expected shortness of my walk, I grew at last quite ravenous, not having eaten anything since my parting breakfast at the Observatory, except the fragment which I snatched up at Cumberland-street. So I went into a shop for selling all things, at Wavertree, a village about three miles from Liverpool, and having luckily a sixpence in my pocket, I spent it to my great satisfaction on sundry refreshments, including a draught of milk, and some bean-shaped almonds, of which I reserved a part for the children at the Grange, the nephews and nieces of the Miss Lawrences: forgetting that four years and a-half must have made a great change in these children, and that they would perhaps have disdained my almonds if I had found them at home, which I did not happen to do.”<sup>33</sup>

Although he thus knew how to shop, it can also be surmised that Hamilton had not thought beforehand about the possibility of getting hungry. It sounds like having had money in his pocket was just a coincidence; he may have been not at all used to take care of himself. Yet, the combination of his rather free thoughts about men and women, his directness, his ability to be strict and his strong awareness of his rank makes it hard to see how Hamilton would just have waited for his wife to take care of him and then perhaps make a row if she did not, or become unhappy and unhealthy from domestic neglect as Graves believed. Doubtlessly, if he could not make coffee or

<sup>32</sup> See p. 140, p. 151, [Graves, 1885, p. 22], [Wayman, 1987, p. 187].

<sup>33</sup> See p. 226, [Graves, 1882, pp. 534-535]. Cousin Arthur lived at Cumberland-street.



something to eat, he would just have ordered someone to bring him something if he would have become “ravenous” during work, or to make coffee for him to drink in front of the fireplace in the evening if he would have wanted to get warm again after observing sessions or having worked late. It can easily be assumed that he simply did not want to come to dinner; that he wanted to keep working, and preferred beer.<sup>34</sup>

### Leeway in a marriage

Hamilton seems to have been very aware of his inability to maintain an orderly lifestyle; although in Parsonstown in 1848 he wrote to be happy to be able to go to bed at a moderately early hour on a clouded night, in 1830 he wrote to Lady Campbell: “It is now about eleven o’clock at night; and Lord Adare, who has just come into my study from the supper-room which I had deserted, and found a beautiful American edition of Laplace’s *Mécanique Céleste* (this was Bowditch’s) on my table, has taken leave of me, saying “good night, don’t sit up at night reading that book; I wish Lady Campbell were here to make you go to bed”; I replied, “Indeed, I believe she would do so if anyone could.””<sup>35</sup>

And although occasionally he did not come to dinner, it was not so bad that there was no order at all; his coming down for breakfast is mentioned rather often in Graves’ biography. Moreover, the stories of getting dressed together when William Edwin was little, finding birthday presents on their pillows from Helen Eliza, and when William Edwin was older and went outside early in the morning, his parents still being “snugly tucked under the blankets,” all seem to show that, generally, they woke up together. But when immersed in a problem or a train of thoughts Hamilton could work through the night as he wrote to Graves in 1845: “I am just about to rout [William Edwin] off to bed, and to practise, at least for this night, what I preach, although I too often find the dawn surprise me when I look up to snuff my candles, after some too fascinating study.”<sup>36</sup> It is not known from Graves’ biography how often that happened, but Hamilton sounds like feeling a bit guilty about it, perhaps knowing that it was actually slightly unhealthy, or he assumed that Graves, or even society, did not approve of this behaviour. Still, it certainly does not seem to have been some alternative daily routine.

<sup>34</sup> Hamilton was not the only husband who would not simply comply to the rules of the household; also Wordsworth did not eat if he did not want to. In 1845 De Vere wrote in one of his diaries: “Rogers [(1763-1855)] came, and there was an amusing scene in the garden, Rogers insisting upon Wordsworth’s naming a day to dine with him, and Wordsworth stoutly exhibiting his mountain lawlessness, stating that he would dine or not as it happened, or as it suited his convenience, and saying that he was sure he would find the best accommodation of every sort at Mr. Rogers’, whether Mr. Rogers was in the house or not. Mr. Rogers at last replied: “Well, you may as well tell me at once to go to the Devil; I can only say that my house, its master, and everything in it are heartily at your service – come when you will.”” [Ward, 1904, p. 73].

<sup>35</sup> See p. 282, [Graves, 1882, p. 364]. According to the *Oxford Dictionaries*, supper is an “evening meal, typically a light or informal one.”

<sup>36</sup> See p. 404. Hamilton really could forget to eat; in June 1858 he wrote to De Vere: “Mr. Grenell’s visit has occupied most of my morning: we walked together through the fields to Dunsinea, for Miss Rathborne had invited us all to lunch there; but (being busy) I left him at her hall-door, though some of my inmates remained there to luncheon, and though I had forgotten to eat anything to-day.” [Graves, 1889, p. 102]. Miss Rathborne was most likely Kate, see p. 169. Irving Grenell was, according to Hamilton, a nephew of Washington Irving (1783-1859), the writer of, for instance, the short stories *Rip Van Winkle* and *The Legend of Sleepy Hollow*.



In an article about Hamilton's descendants Wayman writes that Lady Hamilton had "difficulties in providing a domestic background adequately adapted to his long hours of concentrated mathematical study." That, of course, is already put more realistically than how Graves puts it, yet it can easily be surmised that it would not have been possible at all. And she probably already gave her husband what he needed; not raising arguments if he did not comply to the household rules, and taking care that the rest of the family lived a relatively normal life despite his occasional absences from the dinner table.

It is true that for the year that Lady Hamilton was away Sydney seems to have had him under control but a sister has, in principle, nothing to lose where a wife also has a marriage to maintain, and it is therefore perfectly imaginable that Sydney had far more leeway than Lady Hamilton had. That can, for instance, be seen by the fact that one of Hamilton's sisters, Sydney or Archianna, became a Calvinist without much consequence, while it is absolutely unimaginable that Lady Hamilton could have done something like that; Hamilton was fiercely against Calvinism. He was already very upset after the conversion to the Roman Catholic Church of his local confidant Montgomery; his wife becoming a Calvinist would have been disastrous.

Having had far more leeway than Lady Hamilton had also holds for Helen Eliza; according to Hamilton's granddaughter-by-marriage, Mrs. Phoebe O'Regan, Helen Eliza "was apparently charming and intelligent and was a great help and companion to her father. She helped him with his calculations, she stayed up with him, keeping relays of candles; he was very fond of her and would discuss what he was doing, which she obviously understood, and she was able to give him the companionship which his wife was not able to provide." But while Lady Hamilton had to be around and at all times to be trusted, being the center of Hamilton's life since he could not work without her, after she grew up Helen Eliza could easily risk not being at home or even reachable at some crucial time. She could freely choose if and when to be at home and assist her father, something she thus often seems to have done although, since she was born in 1840, that will not have happened before, roughly, 1855, thus around the time Lady Hamilton fell ill with a 'nervous illness' for the second time.<sup>37</sup>

To further defend Lady Hamilton it can be said that Helen Eliza, who apparently did not go to school, had been with her father very often since he worked at home, and she had most likely been taught by him, even when that will not have been in some regular way. Lady Hamilton does not seem to have been in contact with mathematicians in her youth, and for her mathematics was doubtlessly something far away in Hamilton's realm. Having been accustomed to her father's work from a very young age, although Helen Eliza will certainly not have understood his work on his mathematical level as Mrs. O'Regan seems to assume, having been able to help him she apparently acquired a feeling for mathematics. And, sometimes, Hamilton drew his daughter into his correspondence with De Morgan in a more mathematical way than he did Lady Hamilton, who read many of these letters and was often amused by them, but who will probably not have understood the mathematical jokes.

<sup>37</sup> [Wayman, 1966], [Hankins, 1980, p. 230], footnote 18 on p. 405, p. 308, [Wayman, 1987, p. 304]. Mrs. O'Regan's husband was told by his father that Helen Eliza had been charming and intelligent. Her husband must have loved her very much indeed; according to Hankins, they both had "felt particularly blessed by the marriage." [Hankins, 1980, p. 381]. And no-one seems to have doubted her intelligence; in the 1873 correspondence with Ellen de Vere Graves describes her as "a sweet bright shy and rather eccentric girl, but also religious and good." [Hankins, 1980, p. 382], see also p. 497.

Lady Hamilton knew beforehand that she was unable to understand her future husband's work, which may also have been a reason that she took such a long time to decide if she would marry him. But what was far more important for him was that she was interested in it, that she loved him, that she was around as he needed her to be, and that he could trust her, which he did. Since she had to be truthful she had to be able to really accept how distracted he could be; except when she was very ill he often was not there for her yet she had always to be there for him. To be able to keep loving him and not start to bear a grudge against him she had to exactly know and uphold her boundaries, especially with regards to her mental health, something which almost failed her in 1839 and in 1856. Both times becoming unhappy led to their life falling apart; that certainly was a responsibility Helen Eliza did not have.

And as regards her physical health, being so important to Hamilton's life and work the best thing she could do was to take such good care of herself that she would not become too ill and perhaps die young. Having had an overall weak health it is thus also unthinkable that Lady Hamilton would have been able to stay up with her husband as Helen Eliza did. When her daughter was old enough to do that, she was not so young anymore; she will have needed her sleep to stay healthy and manage the household.

It can still be argued that Hamilton did work happily in the doubtlessly well organized household of Bayly Farm, but like Sydney and Helen Eliza also Mrs. Bayly had more leeway than Lady Hamilton had; that was not their daily life in their own home. And who knows, perhaps also there they did not ask of him to attend every meal; it is not known why Hamilton explained his way of working to Mrs. Bayly, it is of course perfectly possible that she asked him why he filled up the huge blank book in so many hours instead of coming to dinner.

Lady Hamilton has been judged by Victorian standards, standards which were, especially within a marriage, so strict that many women could not live up to them. And in that era Hamilton even chose to live differently than other men. When being immersed in a mathematical problem he did not want to be disturbed and worked as long as he judged necessary; he seems to have taken little care of their financial situation yet insisted on keeping an upper hand in it as can be seen from a story told hereafter; in his "high-church days"<sup>38</sup> he expected his family, and foremost his wife, to join in and later retract again when he retracted from his ideas; and he started on his second book knowing how obsessively he had worked on the first one. But knowing that mathematics was his passion and his imperishable name his ultimate goal; if Lady Hamilton would have been able to control his working habits he would perhaps have lived some years longer, but it is the question if he, and she for that matter, would have been happier.

### Fondness for thought and dislike to action

Throughout his life Hamilton was able to work for hours on end. In his *Recollections* De Vere describes Hamilton when working: "It was on the heights of mathematics that he breathed freely, and I used to see him writing his calculations from morning till late in the evening, almost without stirring from his chair, as rapidly as another could have written notes of invitation, and flinging each of the long foolscap sheets on

<sup>38</sup> See p. 406. For having been interested in Hamilton's work see for instance p. 320 and p. 182.

the ground beside him. I have been assured by competent authorities that there existed but few mathematicians in Europe capable of reading and understanding what had thus been so easily written."

Hamilton was indeed able to concentrate remarkably well; as mentioned earlier, De Vere wrote that Hamilton could read "the most arduous works of Plato in the original Greek, wholly unconscious that the room was dinned by a somewhat noisy company." He further illustrates Hamilton's ableness to concentrate by a telling story: "Sir W. R. Hamilton kept a headstrong horse, to which he had given the name of Comet, and used to gallop it in circles, or perhaps in ellipses, round the lawn. On one occasion he mounted him in Dublin, just after a curious mathematical problem had suggested itself to him. The horse took a mean advantage of his abstraction, and ran away. "When I found it impossible to stop him," he said, "I gave him his head and returned to the problem. He ran for four miles, and stood still at my gate – just as the problem was solved!"

In the foregoing stories his concentration having been intentional, Hamilton could also involuntarily become completely unaware of earthly matters. De Vere writes: "It was as if his constant recollection of what is above us rendered him but half-conscious of the things around. [...] When he had soared into a high region of speculative thought – and it was there only that he was quite at home – he took no note of objects close by. A few days after our first meeting, we walked together on a road a part of which was overflowed by the river at its side. Our theme was the transcendental philosophy, of which he was a great admirer. I felt sure that he would not observe the flood, and made no remark on it. We walked straight on till the water was half-way up to our knees. At last he exclaimed: "What's this? We seem to be walking through a river; had we not better return to the dry land?"

<sup>39</sup>

Next to being able to concentrate for hours during which he could forget anything around him, Hamilton could also be so absorbed in his work for days or weeks that he even, albeit temporarily, could forget about grief. On the 6<sup>th</sup> of January 1832, shortly after learning that Ellen de Vere would not marry him, he attended a Viceregal party and afterwards wrote to Wordsworth: "At that party I met Lady Campbell and several other pleasant persons; but as it had been a hardship to me to leave some mathematical investigations, in which since my return to the Observatory I have been much absorbed, I thought I would pay myself by asking for a frank to you." Without sending the letter, a week later he continued: "This packet has been lying by for about a week, during which time I have been leading a most studious and hermit-like life, even to the point of letting my beard grow frightfully long."

As it holds for many people doing theoretical or creative work also Hamilton did not like to be interrupted when being deeply immersed in a mathematical investigation. Being interrupted in the middle of a train of thoughts and unable to start again for a longer period of time could cause the drive of the moment to be lost; Hamilton wrote to Adare on the last day of 1841, shortly before bringing back his wife from England: "Discontinuous functions are very useful things in algebra itself, but discontinuity of exertion is a very bad state for an algebraist; and you may perhaps remember instances, long ago, of my giving up and throwing by papers on which I had already expended much labour, because some interruption for a week had put me out of train, and allowed my interest in the subject to cool."

<sup>39</sup> [De Vere, 1897, p. 48], p. 105, [De Vere, 1897, p. 46], [De Vere, 1897, p. 42]

But he also had the accompanying problem; he found it very hard to start something else. In 1835 he wrote to Dan Griffin: "I have not written [another letter] yet, being resolved to sober myself down to one letter at least of a less metaphysical air than the foregoing, and being quite too full of general speculation to trust myself at this moment to the task. Besides, I hate beginning to write, or indeed beginning anything – though most employments interest me when actually engaged in them."<sup>40</sup>

A part of this reluctance to begin something may have been the intensity with which Hamilton seems to have done almost anything, and perhaps this intensity was sometimes more than was appropriate then. An example can be his anxiousness for uncle James in 1847, when he was in financial troubles; even when his anxiousness was completely comprehensible, his appeals seem to have gone too far since Richard Butler wrote, apparently reacting on earlier letters not given by Graves: "I have always known your anxiety for your Uncle's promotion, and the exertions you have made to effect it, and I used the pressing words of my letter, not for the purpose of stimulating you – who needed no excitement – but under the notion that, by showing the feeling of one unconnected with your Uncle, they might, in the sight of any person who should see my letter, justify some importunity on your part. I know that had your exertions been as successful as they were both deserved and earnest, your Uncle would long since have been in a situation more fitted to his merits. So do not think it necessary to do anything more than you have been doing, and believe me to be now and always your affectionate friend."

Yet the main reason for Hamilton's reluctance to begin something will have been directly linked to his reluctance to stop with the mathematical investigation at hand. Having to do non-mathematical things being unavoidable, in 1830 he wrote to Wordsworth after having visited him together with Eliza: "You must know that ever since I returned to the Observatory I have been quite absorbed in mathematical thought, except "When some too bright remembrance startled me"; or when I took some morning walk with Eliza, or read a little Homer, or Plato, or Wordsworth; or pursued some of my trains of anxious meditation upon duty, arising from my intense fondness for thought and strong dislike to action. I adopt here the common distinction of phrase between thought and action, and cannot quite avoid being influenced by the common opinion, which prefers the latter to the former, and condemns as even criminal the abandonment of action for thought. But is not thought, in truth, the highest action?"<sup>41</sup>

Indeed, from the remark that he strongly disliked action although he thereafter discovered that both mental and physical action was, for him, a remedy against despondence, it can be concluded that Hamilton did not allude to this kind of action when he wrote that he disliked it; he loved thinking about mathematical or scientific problems, in his study or while walking, or when not walking alone, having a good conversation with his walking companion.<sup>42</sup> The fact that Hamilton wrote to have 'anxiously meditated' upon duty and combined this with his strong dislike to action

<sup>40</sup> [Graves, 1882, p. 514], p. 108, [Graves, 1885, p. 355], [Graves, 1885, p. 141]

<sup>41</sup> [Graves, 1885, p. 406], [Graves, 1882, p. 395]. The line "When some too bright remembrance startled me" comes from a poem he wrote as a farewell to Wordsworth. [Graves, 1882, p. 369].

<sup>42</sup> That for Hamilton thinking indeed was an action is corroborated by Graves who remarks when describing 1823: "I may here note that to [Hamilton] throughout his life thoughts were events. He would remember, when he came to a particular spot in a road or field, the conversation which years before had passed there with a friend, and recall it to that friend's memory." [Graves, 1882, p. 128].

indicates that here he alluded to action in the sense of performing non-mathematical tasks such as doing administration, or perhaps organizing something, or clearing out his library.

### A son's stories

For Hamilton calculating was a diversion after periods of highly concentrated work<sup>43</sup> and Tait makes a remark about that; in his 1866 article in *The North British Review* he writes about Hamilton: "As an arithmetical calculator he was not only wonderfully expert, but he seems to have occasionally found a positive delight in working out to an enormous number of places of decimals the result of some irksome calculation." But that actually sounds like William Edwin's remark about the "sleuth-hound on the track of some unhappy decimal" and indeed, Tait and William Edwin must have had contact with each other since in the article Tait also gives an anecdote told by William Edwin: "[Hamilton] used to carry on long trains of algebraical and arithmetical calculation in his mind, during which he was unconscious of the earthly necessity of eating: we used to bring in a 'snack' and leave it in his study, but a brief nod of recognition of the intrusion of the chop or cutlet was often the only result, and his thoughts went on soaring upwards."

William Edwin will have sent notes to both Graves and Tait, since the anecdote is part of a story which describes the same three stages in Hamilton's way of working as the story given by Graves did. Graves probably read Tait's article before starting on his biography since in his version of the story the bringing in of the 'snacks' is absent, yet it definitely appears to have been the basis for Graves' remark that Hamilton had "no regular times for his meals; frequently had no regular meals at all, merely resorting to some cold meat on the sideboard, when hunger obliged him to intermit his scientific labours." But from the story it can again be seen that this was not at all some daily routine.<sup>44</sup>

According to Tait Hamilton generally "matured his ideas before putting pen to paper," and then he quotes William Edwin who more evenly describes the three stages of Hamilton's way of working than he had written to Graves, having emphasized the didactic stage. The story he told to Tait not being equal to the story he told to Graves allows for the idea that maybe, just as his father did, William Edwin adapted his stories to the person he was writing to. The sketch of Hamilton before the blackboard as told to Graves seems rather exaggerated, as if he tried to emphasize Hamilton's eccentricity, therewith perhaps adapting to Graves' feelings about how much Hamilton had needed to be taken care of and how badly Lady Hamilton had done that, while to Tait his father's genius in mathematics, and perhaps his own capacity to understand his father, is emphasized.

Tait gives William Edwin's complete story as follows: "I have been much with him in his periods of mathematical incubation, and would divide them into three, thus: – First, that of contemplation. [He then gives the anecdote about the 'snacks'.] Second, that of construction. In this he committed to paper (or, if nothing else were at hand, as when in the garden, a few formulæ written on his finger-nails) the skeleton, afterwards to be clothed with flesh and blood, of the results arrived at. Third, the didactic

<sup>43</sup> See for instance p. 243.

<sup>44</sup> See p. 325, p. 328.

stage. Having now completely satisfied himself of the correctness of the results (and sometimes having retraced and simplified the method of discovery) he proceeded to consider how to teach it, and this by experiment. I was so long with him in his periods of mathematical incubation that I knew, almost by the tones of his voice and the expression of his eyes, when the didactic period had arrived, and generally anticipated it by fetching the black-board to whatever room he might be in. The audience generally consisted of the Observatory assistant and myself.”<sup>45</sup>

Although giving different emphases, the versions of the story of course for a large part overlap, yet in Tait’s version Hamilton’s extreme focus can more easily be recognized. It was expressed by his being able to nod when his housemates came in without losing the train of thought, which is in complete accordance with being able to solve a problem when riding a runaway horse, and by, in the second stage of “mathematical incubation”, the writing on his fingernails while walking in the garden.<sup>46</sup>

### 9.3.1 Highly focused laboriousness

But Hamilton’s distraction also seems to have had its shadowy sides. As mentioned earlier, he attached great value to rank, and he also expected that from other people, especially the people working for him; his staff and his servants. In one of William Edwin’s stories as given to Graves an example of the combination thereof with his distraction can be seen, painting Hamilton’s behaviour not only as unfriendly but even as rude. The ostensibly funny story is about Mrs. Comerford<sup>47</sup> who had forgotten to ask Hamilton for money in time.

“[Mrs. Comerford] was much at the Observatory, and often used to go into town for marketing. One of Sir William’s Laws of the Medes and Persians was “No servant, workman, postman, baker, College tradesman, or other person, shall go into Dublin or leave the Observatory without giving previous notice to me.” Another, “Any person wanting any large sum (e.g. £5) must give ample notice (say a fortnight’s) beforehand: anyone going into town for marketing and requiring any small sums shall give

<sup>45</sup> [Tait, 1866, p. 21], [Tait, 1866, pp. 37-38]

<sup>46</sup> Hankins notes that Hamilton wrote on his egg at breakfast, [Hankins, 1980, p. xx], and once even tried to write a formula on a leaf of ivy with a sharp rock, presumably during one of his walks. [Hankins, 1980, p. 399]. Graves writes in the preface to his biography that “one would think from his manuscript-books that [Hamilton] lived with the pen always in his hand,” and when describing Hamilton’s last day he mentions his pen, having been “so long his almost inseparable instrument of thought.” See p. 172, [Graves, 1889, p. 211]. Graves did not mention what kind of pen Hamilton used; capped metal dip pens existed since the eighteenth century, and the manufacturing of steel pens “became in Birmingham, about 1830, a very prosperous industry.” See p. 8 of Bore, H. (1890), *The Story Of The Invention Of Steel Pens : with a description of The Manufacturing Processes By Which They Are Produced*. New York: Ivison, Blakeman & Company. <https://archive.org/details/storyofinvention00borehich>. This book actually being a large advertisement for Perry pens, sold by the publishers of the book, it contains many illustrations of steel pens and the manufacturing process. Also fountain pens already existed in the eighteenth century and were rapidly developing during Hamilton’s lifetime, yet they still suffered from gross imperfections, such as the ink not being smooth enough. Even when Hamilton wrote on the eggs and his fingernails with a sharp pencil and not with a pen, he did write his quaternion equations in his notebook while walking to Dublin and driving to the Academy in ink; he thus will either have had a fountain pen, or there was a way to carry ink around. Pens and paper were really quite a subject in those days; in 1853 De Morgan wrote: “This paper is made of straw, and if you write on it you will find your pen runs along it without catching. [...] You have no idea what a comfort this straw paper is.” [Graves, 1889, p. 465].

<sup>47</sup> It is not exactly clear who Mrs. Comerford was. For who she might have been see p. 264.



notice on the previous day." Mrs. C. sometimes forgot these rules, and one day was just going off at, say, 10 A.M. Dialogue: Mrs. C. "I am just going into town, uncle, and I want seven shillings to get tea, &c. Have you anything for town?" – Sir W. "Oh, why didn't you tell me last night? I could have had a package ready: you can come up in about an hour." – 11 A.M. Mrs. C. "Well, uncle, are you ready? It's 11 o'clock; I wish you would let me off." – Sir W. "I think I'll wait to write some letters." – Mrs. C. "Shall I send the car round." – Sir W. "Certainly not." – Mrs. C. "The mare will be drenched." – Sir W. "You can come up in about half an hour." – 11.30 A.M., Mrs. C., knocking. "Well, uncle!" – Sir W., with a groan. "What is it?" – Mrs. C. "It's teeming rain, the mare had better go round." – Sir W. (second groan). "Very well, I will wait for the evening postman" (4 P.M.). – 4 P.M., postman comes. Mrs. C. "Well, uncle, I'll be late for shopping." – Sir W. (cheerfully and abstractedly to himself) "Well, at last I've conquered that." – Sir W., to me. "I've got the second elimination in a very compact form. Now, you see  $\vartheta$ ," &c. – Mrs. C. "Well uncle," &c. – Sir W. "Wait a moment." "Well then (to me) I see a very simple way – stop, don't speak for a moment." – Exit Mrs. C., whispering to me, "Get uncle to let me go or the shops will be shut, and our candles are out." – 6 P.M., Mrs. C. (almost crying), "Uncle, the shops will be closed if you don't let me off." – Sir W. " $\mu^{-1}L$  = Well, I'll not mind writing any letters. I'll not keep you." – Mrs. C. "But you did not give me the seven shillings." – Sir W. "You should have told me before. However, mind I'm not keeping you." – Exit Mrs. C., in despair."

Yet, the idea that Hamilton would exhibit such very crude behaviour is hard to reconcile with his humble and polite image, even when allowing for his strong awareness of rank which led to the harshness in his stance towards the Gardener at the Botanic Gardens at Glasnevin in 1837. But it can be argued that there he recognized a social irregularity; in his eyes a professor should not have to ask permission of a gardener. As long as the social order was acknowledged he saw, as was written by De Vere, "in every neighbour, however full of infirmities [...] the human being [...], invested with all the rights and dignities which belong to humanity," something which could, for instance, be seen in his treatment of the "detained housebreakers", directing that they should be asked whether they preferred tea or milk for breakfast, and in his playing with Lizzie, which was, apparently, quite remarkable in his days.<sup>48</sup>

## Exaggerations

What therefore seems more likely is that this story was again an exaggeration; that William Edwin was illustrating what it looked like when his father was working instead of literally describing an event. Hamilton will certainly have displayed such behaviour, making the story intrinsically true, but it will hardly have happened all in one day, even having had as a consequence that Mrs. Comerford could not go to town at all and there were no candles, and thus no light at the Observatory that night. It can also be wondered why Hamilton would have wanted to know who was going to leave the Observatory; when working hard on his mathematics, everyone who was planning to leave coming in to tell him would have very much disturbed him. If it really had been true, then on days on which Hamilton would be as distracted as in the story about Mrs. Comerford, the Observatory would have turned into a sheer prison.

<sup>48</sup> [Graves, 1889, p. 242], p. 48, p. 45. See for both the housebreakers and Lizzie p. 41.



The idea that this story is an exaggeration, or perhaps rather a colourful composition of little events and striking traits, is further underpinned by the improbable combination of people at the Observatory. There was certainly no “postman, baker or College tradesman” who would have to obey Hamilton. The College tradesman presumably serving as the climax in this list, about the baker Hamilton wrote to Wordsworth in 1831 that being “blocked up” by snow they had found that there was enough food at the Observatory in the form of potatoes, pigs, sheep and cows, but that they might “want the luxury of bread, for the baker cannot approach us.” And the postman he even had to seduce into doing something for him; in 1856 he wrote to De Vere: “At this moment I am detaining the morning postman, who is not bound to wait for letters, but whom I have bribed by promising him a cup of tea in my hall.”<sup>49</sup>

### Running late or procrastination

Introducing the foregoing story about Mrs. Comerford Graves writes: “Under the head ‘Procrastination’, Mr. Hamilton mentions of his father that he was almost invariably late for church, dinners, and public meetings of all kinds.” Graves comments on William Edwin’s calling this “procrastination”: “I think that procrastination is not quite the right term for this short-coming. It arose, in my opinion, not from a weak habit of postponing what he had determined to do, but rather from a mistaken estimate of what might be accomplished by him in the interval preceding an appointment. He lost count of time when absorbed in his own work, and, in consequence, engagements of inferior interest were deferred; some, as it were, pushed forward so as to entail merely the lateness spoken of by his son; some pushed off the line into an undefined future. It was thus miscalculation of time as an element to be applied to practical uses, not a failure of intention or even of will. He came late to church or dinner, but still he arrived. He answered a letter a month, or a year, after he received it, but he answered it; sometimes, indeed, omitting to post his answer: and as, speaking broadly, he forgot nothing, he only wanted a stretching out of the twenty-four hours, or a boundless extension of life, to fulfil all his obligations. He was certainly open to the taunt, friendly or hostile, that, however great a master he was of ‘pure time’,<sup>50</sup> he was no adept in the management of sublunary time – of the time we have to deal with in this practical world of ours. And yet, after all, it may be asked, Is not the deficiency thus commented on the almost inseparable shortcoming as to minor activities of a great mind habitually employed in doing great things?<sup>51</sup> But the reader must not be deprived of his son’s dramatic exemplification of work thus miscalculated with respect to time.” Herewith Graves alludes to the story about Mrs. Comerford which he gives directly hereafter, and commenting on William Edwin who called the story “an instance of procrastination” Graves continues: “This instance is, indeed, but a miniature of Hamilton’s repeatedly unfulfilled prognostications of the completion and publication of his books.”

<sup>49</sup> See p. 93, [Graves, 1889, p. 63], p. 448.

<sup>50</sup> In 1837 Hamilton wrote an essay on algebra as the science of pure time. See footnote 114 on p. 208.

<sup>51</sup> Graves refers to a sentence in an 1832 letter from Hamilton to De Vere, in which he wrote about Wordsworth: “I heard at Cambridge from a nephew of Wordsworth, who is a fellow of Trinity, and who had spent much of the winter at Rydal Mount, that Wordsworth was so much occupied with [his poem ‘The Recluse’] then as to forget his meals and even his politics.” [Graves, 1882, p. 585].

Having written about William Edwin's stories that he reproduced them "as the truthful notes of an observer possessed of special advantages," Graves seems to have taken the stories very literally indeed; he nowhere shows any sign of having considered the possibility that William Edwin was mainly painting the atmosphere around Hamilton when he was working. But even if Graves did not take the story about Mrs. Comerford completely literally it is amazing that he reduces the way in which Hamilton would have driven Mrs. Comerford to utter despair to a 'miniature instance' of 'miscalculation with respect to time'. Whether Mrs. Comerford could not go to town due to Hamilton's procrastination or just due to a miscalculation with respect to time is not the problem in this story; letting her wait an entire day and driving her to such desperation that she almost cried is something Hamilton would have done to her, yet Graves does not comment on that. That might again say something about Graves himself; throughout the biography he does not seem to have paid much attention to people of the lower classes, or the personnel.

But Graves will certainly have been right when suggesting that Hamilton often thought that he still had some time left to finish something; for instance, writing to De Morgan 1852, "Lady Hamilton is starting to attend church in Dublin, and I must seal and sign," it can be guessed that he just continued writing until his wife was ready for church, to simply run after her. Coming with her to Dublin, that day he will have been in church on time.<sup>52</sup>

### Hamilton on procrastination

Although Graves defends Hamilton against William Edwin's 'accusations' of procrastination by arguing that Hamilton just made mistakes in 'estimating what might be accomplished in the interval preceding an appointment', in his 1866 obituary De Morgan comments on the fact that Graves, in his 1842 article about Hamilton, had 'accused' Hamilton of procrastination. Graves had written: "we are free to confess, as to our friend, that we do not consider him exempt from our national sin of procrastination." De Morgan defends Hamilton by writing: "Hamilton was apt to work by fits and starts. He has been known several times to work fourteen hours in one day, standing nearly all the while; but there were intervals of comparative inaction. The laudatory article to which we have referred, accused him of procrastination: we may add, that he was the most methodical procrastinator who ever lived. What other specimen of this class was much given to keeping copies of his letters? – aye, even of letters which were never sent?"<sup>53</sup>

Hamilton often wrote about himself that he was not a good correspondent and used the word 'procrastination' for that, but at the same time that seem to have been about the only instances he used this word for himself; he did not use it when describing his aforementioned dislike for action, of which it was assumed that he was alluding to performing tasks, and he never used it in connection with his mathematical work. Apart from the time his wife was away and the six-week interruption while corresponding with Catherine he indeed never seems to have had trouble to start working on his mathematics; his largest problem will have been to stop with it.

<sup>52</sup> [Graves, 1889, pp. 241-242], [Graves, 1889, p. 348]

<sup>53</sup> [Graves, 1842, 108], [De Morgan, 1866, p. 131]. It is not known why, but Graves left the part about his article, the sentences starting with "The laudatory article" until "which were never sent", out when he gave parts of De Morgan's obituary; see p. 42.

About his being a bad correspondent he wrote, for instance, in a letter to Boyton of May 1841 when his wife was in England and he was unable to work: "My dear Charles – I am concerned to think that your letter of December last has remained till now unanswered. Procrastination is, no doubt, that which must bear the blame, but it may be mentioned that your note, though all the kinder for so coming, came at a time when I was stunned with grief for the recent loss of our dear friend Arthur Hamilton, and had quite lost for the time (indeed I have not yet recovered) that "spring and elasticity of the mind" which you remarked to have begun to fail in him when you last met him here."

Hamilton also used the word 'procrastination' in an 1844 letter to De Morgan: "I must have appeared discourteous, in not sooner acknowledging your very kind letter, written to me about two months ago [...]. Immediately after your letter arrived came an old friend to visit me; and if you have ever been afflicted with the disease of procrastination, you must know that a slight cause, preventing immediate action, may be sufficient to produce a long delay." To Adare in 1845: "I was delighted to see your handwriting, a few days ago, outside, and still more to see it inside a letter; for I assure you that you need not doubt my remembering, with the most lively pleasure and affection, the Happy days we passed together long ago. Nothing has ever estranged my feelings, and I know that nothing has estranged yours from that affection, though business, accident, procrastination, at least on my side, may have prevented the adequate expression of it." And in 1847 to Graves while on board the "Merlin": "I have been so procrastinating a correspondent, and expect to be for some time longer so much occupied with things at home, that I am resolved to write to you at once, and to use for that purpose a part of the time of this calm and pleasant voyage."<sup>54</sup>

In 1849 Hamilton apologized to Mrs. Ranke, Graves' sister, for being such an irregular correspondent; "let me request, beforehand, forgiveness for a dilatory reply, in case that either you or Professor Ranke should ever favour me with a letter in future. On this occasion I exert myself (most willingly) to break through my procrastinating habits, but might not be so successful another time." Also in 1849 to De Morgan after a mathematical disquisition: "Lest this letter should either grow like the wick of my countryman's candle, or on the other hand be quite blown out, and fail to reach your eyes at all, by any incipient procrastination, I shall send it away at once."

And only once he used the word in a different context; in 1854 he wrote to De Morgan: "Having so long procrastinated about returning your Mourey, I wished to retain some notes of the work, which might assist my own memory, and enable me perhaps to write a little to you about it, when it shall be in your hands again, as I really hope it soon will be, for I have lately made nearly as full an abstract of the book, in one of my own manuscript volumes, as I wish to have at hand."<sup>55</sup>

Hamilton apparently took correspondence as a very serious task, to be performed as a duty, which it will have been more so in Hamilton's days than nowadays due to the lack of other means of long distance communication, yet thereby allowing the

<sup>54</sup> [Graves, 1885, p. 332], [Graves, 1885, p. 473], [Graves, 1885, pp. 500-501], [Graves, 1885, p. 585]. The 1844 letter to De Morgan is given in both the second and the third volume of Graves' biography. Remarkably, in the second volume, in connection with triple algebra the word 'triplicize' is given as written by Hamilton, while in the third volume it is given it as 'triplicise'. It is therefore uncertain whether Graves always gave Hamilton's spelling. See also footnote 28 on p. 62.

<sup>55</sup> [Graves, 1885, p. 646], [Graves, 1889, p. 280], [Graves, 1889, p. 488]. In 1828 C.V. Mourey wrote on the the geometrical representation of complex numbers, see [Crowe, 1994].

writing process to fall prey to procrastination. But in the end it indeed all sounds like being almost unable to stop working on his mathematics. Also the procrastination Graves alluded to when he wrote that Hamilton sometimes omitted to post his answer seems to have been due to that; in a letter to Ingleby in 1864 Hamilton wrote: "I have no letter of yours, nor of my own, beside me at this moment; and there are at least two unsent letters of mine, to which you are entitled. When I have written a letter I am apt to think my duty to my correspondent performed; the additional circumstances of folding it up in an envelope, directing, stamping, and in some cases copying, or getting copied, the contents, appearing to fade away into a remote perspective." And although he did not say that, it is very easy to imagine him immediately after having finished the writing returning to the mathematical problem at hand, being happy that the duty was done and he could delve into it again.

In the end it is of course impossible to say how much of his procrastination was due to his mathematics, but if it was indeed due to his wanting to continue his work it hardly was a shortcoming. And he seems only to have really procrastinated on duties where the consequences would not be too severe such as writing to friends; he "came late to church or dinner" as William Edwin suggests, but according to Graves he did come. It is easy to agree with De Morgan, if Hamilton had really been a general procrastinator he could never have done so much work and at the same time copy so many of his letters.

As a last remark on this topic: there is a wonderful description of the character of Hamilton's only grandson, John Rowan Hamilton O'Regan, son of Helen Eliza who, happily married, sadly died a month after giving birth to him in 1870. In Wayman's 1966 article John O'Regan is depicted as an "irregular genius", and, just like his grandfather and his uncle William Edwin, as a "lively character". Wayman writes: "The wife [Mary Florence Baird (1855-1946)] of A.L. Smith [(1850-1924)], Master of Balliol College [Oxford University], recalled O'Regan as a young man. "... the familiar figure, with its bounding step, knapsack on back, disreputable coat and cap, a truly welcome guest, though he would give no end of trouble with his new diet fad – no meat, no coffee, no drink, but nuts and perhaps some [Baird had written: highly odoriferous] Norwegian cheese, of which he was very proud ... He stuffed the children with sweets, used up all the hot water, singing loudly all the time, came in late for every meal and then didn't eat, was always ready to discuss anything and everything, to walk about endlessly.""<sup>56</sup>

From this description it can perhaps be inferred that Hamilton's often being late was not only due to his being "habitually employed in doing great things;" his "miscalculation of time as an element to be applied to practical uses," as Graves called it, may also have had an hereditary component. Just as being lively and having a penchant for walking; also Hamilton was a fervent walker.

<sup>56</sup> [Graves, 1889, p. 175], [Wayman, 1966], p. 68. See for the "lively disposition" of William Edwin p. 173 of Wayman's 1966 article, for the "lively character" of John O'Regan p. 174 of the same article. See for the quote about O'Regan Mary Smith Baird's 1928 book *Arthur Lionel Smith Master Of Balliol (1916-1924) : A Biography and some Reminiscences by his Wife*. London: John Murray. <https://archive.org/details/ArthurLionalSmithMasterOfBalliol19161924>. But where Wayman gives his second ellipsis Mary Smith Baird had written: "until, after a day or two, lumbago began and I came to the rescue with Elliman and calomel." Elliman's embrocation having been used against joint pains and calomel as a disinfectant or purgative, O'Regan was perhaps slightly less fit than he seemed to be in Wayman's description.

## Untidiness

The most notable consequence of Hamilton's "dislike for action," or unwillingness to interrupt his mathematics, was the often mentioned chaos in his library. In his obituary De Morgan wrote, and here the "informant" again seems to be William Edwin: "His papers were in most picturesque confusion, but he knew how to lay his hands on any one he wanted: he could detect the removal, were it only a quarter of an inch, of any one out of hundreds, and any such offence against the laws of his study would throw him into what our informant calls a "good honest thundering passion.""<sup>57</sup>

This story will certainly have partially been true; Graves sounds impressed by Hamilton's very extensive and precise referencing, trying almost painstakingly to give credit where credit was due, something which, in their pre-digital, paper era would have been an impossible task if he had been totally unable to find papers. But it certainly was also partially untrue; Hamilton was often unable to immediately find certain letters or papers although they were mostly well-remembered. In 1845 he wrote in a letter to De Morgan: "Have you one to spare of your first Paper on the Foundation of Algebra? I know you sent me one, for (too rare event with me) I thanked you for it, and remember that I quoted Kant; but it is buried, I am sorry to say, among piles of pamphlets and papers, and is, for the present, lost." And in 1849, also to De Morgan: "If I lay a letter out of my hands for a few hours, without answering it, I am sure to find that it has been swept away and covered up, for the time, by the Charybdis<sup>58</sup> of my other papers. No doubt, every such missing treasure may be expected, at some future time, to emerge to view; and may then be suddenly seized, by a bold and ready hand. Thus, from month to month, or at least from year to year, I find a note or two of yours eddying upward to the light; but, for the instant, your last long (and welcome) letter is invisible. However, I remember much of its contents, and shall send something now in answer to one, at least of its "loose thoughts.""

As can be expected from these descriptions, the "eddying upward to the light" after some years happened more often; as mentioned earlier, in August 1840 Hamilton wrote to De Vere that he felt as if he was "answering a letter of yours not very different in date from this of mine, so far as months and days are concerned, but happening to vary by three years from the present Annus Domini. Some tempest among my papers had tossed it up not long ago."

Adding to the troubles of lost papers was the 'clearing out' of the library for practical purposes in June 1852; Hamilton wrote to De Morgan "Thanks for your printed paper, and long note, both of which reached me this morning. Ten days (or nights) ago, I wrote to you a double-sheeted note, but laid it aside with the purpose of adding to it, and now – not that I pity you on that account – there seems but a poor prospect of its ever turning up again. For you must know that I gave a sort of official dinner in

<sup>57</sup> [De Morgan, 1866, p. 132]. De Morgan never visited the Observatory, but William Edwin and De Morgan knew each other, see p. 214. Hamilton and De Morgan only spoke with each other once; after Hamilton's death in 1865 De Morgan wrote to Lady Hamilton "I met him, about 1830, at [Charles] Babbage's [(1791-1871)] breakfast-table, and there, for the only time in our lives, we conversed. I saw him, a long way off, at the dinner given to Herschel (about 1838) on his return from the Cape; and there we were not near enough, nor, on that crowded day, could we get near enough, to exchange a word." [Graves, 1889, p. 215]. See also p. 194.

<sup>58</sup> Charybdis was a sea monster in Homer's *Odyssey*. According to the *Encyclopædia Britannica* "Charybdis, who lurked under a fig tree [...], drank down and belched forth the waters thrice a day and was fatal to shipping. Her character was most likely the personification of a whirlpool."

my Library on Wednesday last, as being then (for the 26th time) one of the Examiners for Bishop Law's Mathematical Premium, and was obliged to allow housemaids to use pretty freely their discretion in clearing out the room. Orders were given, no doubt, to abstain from destroying papers; but to all practical purposes, many, indeed most, of those which were lying about are hopelessly hidden from my view; unless, indeed, I shall be roused, after my book is out, to "take stock", as tradesmen call it, in various ways, as regards volumes, manuscripts, observations, &c. The last are not my property; but I fancy that of my papers a vast number must be not worth preserving. Still whatever are preserved may with advantage be classed."<sup>59</sup>

Graves mentions this state of "confusion" of Hamilton's papers when he writes in the introduction of the first volume of the biography: "the labour of sifting [after Hamilton's death] an immense mass of papers has been far greater than was anticipated: [...] Hamilton preserved papers of all kinds, whether of value or not, and left them behind him in a state of utter confusion. It may be added that he had the habit of putting on record very minute circumstances. Thus, not only did he preserve in the form of draft or copy a large proportion of the letters and many even of the notes written by him, whether important or unimportant, but he often recorded also the hour at which they were despatched, and the person to whom they were entrusted for the post. One would think from his manuscript-books that he lived with the pen always in his hand. This regard paid by him habitually to small things, as well as great, may probably have had an injurious effect upon his biographer; certainly it has enormously increased the labour of selection."

And also this untidiness seems to have run in the family; also uncle James was "not systematic", although his solution seems to have been to just throw everything away. When Graves was looking for letters to uncle James to include in the biography no letters were found. His son [James Alexander] wrote to Graves: "my dear father ... who was indeed a man of great ability and learning, and of most charming versatility, as well as power and originality of mind, was not systematic, or careful of his papers: and I have often grieved to think that there remain the merest scraps and remnants of them, sufficient to indicate in the vaguest way the learning, research, refined and critical taste, poetry, philosophy, wit, pathos and sentiment, of which he was full, and which I seem to remember more distinctly, and value more fully in my old age, than in former years."

But not just Hamilton kept lots of paper in a time where contact was limited to either visiting or letter-writing. In 1852 De Morgan wrote: "I have just finished sorting our friend Baily's correspondence. What a man! He kept and put into the rest, in alphabetical order, acceptances of invitations to dinner, apology from the candle man for the defects of the last batch, the printed request of the Assurance Office to know if the individual underwritten (who happened to be A. De M.) was of good health and sober habits, et multa similia. I have, however, settled what shall be sent to Airy to be preserved at Greenwich, and what shall be destroyed. One or two letters from you on astronomical subjects are among the former."<sup>60</sup>

<sup>59</sup> [Graves, 1885, pp. 679-680], [Graves, 1889, p. 76], [Graves, 1889, p. 258], [Graves, 1889, p. 279], p. 205, [Graves, 1889, pp. 377-378]. For the dinner see also p. 307. It is not known whether Hamilton really sorted out his papers after having finished his book.

<sup>60</sup> [Graves, 1882, p. vi], p. 172, [Graves, 1882, p. 25], [Graves, 1889, p. 403]. De Morgan added, and Graves really gave the bold-faced sentence as such: "Your handwriting is diminishing as you grow older, and so I see is mine. We ought all to write a round hand copy now and then, or at least



Hamilton was also not the only untidy scientist; in 1838 the English geologist Adam Sedgwick (1785-1873), one of the founders of the Geological Society of Dublin, wrote to Hamilton: "My table is groaning under the load of unanswered letters. And to the groanings of my table I am groaning in dismal response, and in most unhappy sympathy. God knows how I am ever to write my way through half of them. Somewhere in the middle of the heap, before I had disturbed it, was a note from Lord Adare, enclosing a copy of your sister's poems, forwarded to me at your request. How long they had been on my table I hardly know; but I think from their quiet look they had been roosting there for some months." He was perhaps not as untidy as Hamilton, his "heaps" seem to have been limited to his table; yet since Hamilton was able, as De Vere described, to fill foolscap sheets with his calculations "as rapidly as another could have written notes of invitation," he may also have produced more paper than other scientists.<sup>61</sup>

### Plates on the papers, not between them

In his book about Dunsink Observatory Wayman comments on the famous story about how dinner plates were found between Hamilton's papers, a very good example of how gossip can change the emphasis of an in itself true story by adding only some minute details. Wayman writes: "The ultimate tale is told of the uneaten meals that were found sandwiched between papers in [Hamilton's] study after his death, but it seems that this story was a fabrication, or at any rate a gross exaggeration. Sir Robert Ball [(1840-1913)] was told by Hamilton's nephew, presumably one of the Rathbornes,<sup>62</sup> concerning his study during his lifetime (not after his death), that "There was a kind of laneway from the door to the writing-table, on either side of which papers, books, letters, and mathematical manuscripts were heaped together to a depth of two or three feet. Visits of the housemaid to his sanctum were rigidly interdicted. Soaring aloft in mathematical speculation, Sir William was utterly oblivious of the sound of the dinner bell. When at last Nature did make some food necessary, a chop would be handed in on a plate at the door. The nephew above mentioned declared to me that when he visited the room he saw many of these plates, with chop bones on them, thrown about on the piles of manuscripts!" This seems to be the basic authority for the story."<sup>63</sup> There thus were plates on the piles of paper, yet not between them, let alone in his cabinets as has also been claimed.

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**to keep a very broad-edged pen, as I do, and use it sometimes, writing large enough to show the loops unblotted."**

<sup>61</sup> [Graves, 1885, p. 282], p. 348

<sup>62</sup> Ball lived at Dunsink from 1874 to 1892. "One of the Rathbornes" will have been John Garnett Rathborne; Ball and Rathborne had become friends. Wayman writes about "the good relations that [Ball] enjoyed with the occupier and owner of the neighbouring Dunsinea lands: "Among my neighbours at Dunsink, Mr John G. Rathborne deserves special mention. He was one of the best friends I ever had, and the walk home from Castleknock Church on Sunday mornings was always rendered delightful by his company." It was Mr Rathborne who, on the occasion of the Transit of Venus of 1882, at 3 p.m. on 6 December, when the Sun was barely 10 degrees above the horizon, agreed to cut down a tree in order not to obscure the view from the South telescope." [Wayman, 1987, p. 113].

<sup>63</sup> [Wayman, 1987, p. 64]. Wayman wonders which room this may have been, and gives as one of the options that it was the "regular dining-room" since that was the room "which Hamilton had to spend two days clearing for a dinner-party." But that is incorrect; Hamilton mentioned that the dinner was given in his library. The dining-room was the northeast room on the ground floor since according to Wayman Hamilton wrote in November 1833 that Adare "would occupy the NE bedroom,



## 9.4 Familial traits

In 2013 a short opinion piece was published in the *Chathamthisweek* by J. Rhodes about “William Edward Hamilton” and it is clear that it is about William Edwin; he is said to have been born at Dunsink Observatory in Ireland. According to Rhodes he came to Chatham, Ontario in October 1880, and was a journalist and editor. The 2013 article is entitled ‘Hamilton listed cost of everything in his diary’, and starts with: “Extremely intelligent people sometimes do exceedingly stupid things, like wasting a life. According to an article in the March 18, 1902 issue of the Chatham Daily Planet, such was the case with W.E. Hamilton.” In the *Chathamthisweek* article it is further described how William Edwin was “a meticulous recorder of goings on in the community, which included the cost of everyday items.”<sup>64</sup>

The 1902 *Chatham Daily Planet* editorial is given by Wayman in an appendix to his 1987 book about Dunsink Observatory as one of seven articles about William Edwin. The editorial reads: “The sudden passing of W.E. Hamilton yesterday removes from our city one of its most widely known and able residents. Possessed of a magnificent education, endowed with a brilliant intellect and characterised by a vigorous and strong personality, Mr. Hamilton was destined to become a man among men, to attain distinction, honor, prestige. Although identified with a sphere beneath that for which his talents and attainments had marked him, the life was not a wasted one. He took a keen interest in all public affairs, and wielded a vigorous pen for the cause he championed. And yet – ah, there are many lessons for us all bound up in the history of that span of years. And Chatham is indebted to the deceased. He was a loyal citizen and an active one. At times, possibly theoretical and ethereal, but always elevating, his counsel and advocacy were along lines calculated to public weal and betterment. And now that he is gone – that he is taken into the Unseen and left none near and dear to guard and cherish the memories of the future, The Planet trusts the good people of Chatham may mark his resting place by some memorial of the life he spent among us. The tribute would not be to the deceased alone.”

In another, undated, *Planet* editorial given by Wayman it is written: “The life story of the late W.E. Hamilton, editor and proprietor of the Market Guide, is one of the oddest ever told.” After giving some quotes from William Edwin’s *Peeps* it continues: “In the eighties Mr Hamilton edited this paper [Wayman adds: *The Planet*] for about eight months. He was a born writer and his pungent paragraphs and weighty editorials were much read and commented on. In statistics he was especially good. Mr Hamilton was a member of the Macaulay Club.”<sup>65</sup> He was known to nearly everyone in Chatham and everyone had a good word for the kindly good-natured old

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above the dining room, instead of the SE bedroom.” [Wayman, 1987, p. 159]. The windows of these rooms can be seen in the drawing of the Observatory on the front page of this essay at the right-hand side of the house since it is looked at from the southeast. The 1835 drawing must have been made in the summer, very early in the morning, since the sun seems to be in the northeast. The Hamiltons can be assumed to be the couple walking towards the hall-door which is facing south; he is wearing his hat, and she her parasol.

<sup>64</sup> See footnote 53 on p. 22, [Hamilton Jr, 1895, p. 15].

<sup>65</sup> According to Vincent Lauriston, see p. 365, the Macaulay Club was “the oldest literary and debating club in Canada. [...] The famous club, founded in 1833 [was] traditionally dedicated to training its members in public speaking.” Lauriston, V. (1967), *A Centennial Chronicle of Kent Doctors*. Chatham: Printed by Shepherd Printing Company Limited, bound by Bookshelf Bindery Limited. <http://images.ourontario.ca/partners/ckpl/ckpl0027158861t.pdf> [Accessed 08 Jun 2015].

Irishman.” The use of the word ‘oddest’ seems to indicate that William Edwin was, like his father, no ordinary citizen, as can be felt throughout the articles about him in Wayman’s book. And whether or not he wasted his life as the opinion article claims also seems to have been subject to discussion in William Edwin’s days, given that in the 1902 editorial it is specifically mentioned that it was not.<sup>66</sup>

Yet the word ‘wasted’, as it is used in the 1902 editorial, does not seem to connote a wasted life in a general or philosophical sense; it rather indicates a lack of high status and wealth which William Edwin could have achieved if he had wanted to. It is entirely unknown why he did not strive after status or success, and the only way to find out what motivated him would be through his writings. But that is a problem; as much as his father wrote about his thoughts and feelings and motives, so little did William Edwin do that. Reading his *Peeps* it almost feels as if he is observing himself, except perhaps, very shortly, when he wrote about Henrietta.

From the stories in the *Peeps* something can be derived about William Edwin albeit only indirectly. It does contain some good self-mockery: “Any editor, lacking time or ability to write an unfavorable notice of these “Peeps”, can be furnished with same by me: 4 cents per word, cash – strictly sub sigillo [sealed].” Which is reminiscent, albeit harsher, of Hamilton’s ‘Reviewers Reviewed’; his ironic yet funny review about himself. Indeed, both Hamilton and his son could mock themselves rather jocularly, but they could also do that in a more serious way: William Edwin’s *Peeps* ends with: “I have not pretended to give a complete history of Chatham. If you want any further information, write to me, enclosing stamps for reply, and you will get your answer promptly. I have dealt little with the past, much with the present, slightly with the future, which is full of hope. If Chatham gets the electric railway, it will be 15,000 in 7 years, in any case 20,000 in 20 years. And now gentle reader good-bye. Come on Mr. Critic and cut me up like a pig, as Tennyson used to say: Sharpen your knife. My hide is thickened by thirty years of journalism.” This sarcasm is highly reminiscent, although again harsher, of his father who once wrote: “Wordsworth did me the honour to cut up [...] some of my early poems. [...] Slash away at my sonnets; but spare me [...] a little praise for the quaternions.”<sup>67</sup>

Next to the self-mockery, another remark in which perhaps the family ties between father and son can be recognized is written at the end of the *Peeps*: “I wish somebody would tell me how to cure myself of the bad habit of writing notes on loose scraps.” Indeed, the “writing on scraps” was something his father also did; in 1848 Hamilton wrote in one of his manuscript books that while he was searching for something in his library he found a scrap of paper, on which he had written some thoughts about himself. He then continued: “This scrap, which I am about to burn, was, I think, designed as a partial draft of a letter to Mr. Whewell in 1841, which letter, however, I did not send, perhaps as thinking it too egotistical. Yet for myself I shall preserve here a memorandum of the remainder.”

Also herein William Edwin was far more harsh towards himself than his father; after having claimed “credit for 17 things in Chatham”<sup>68</sup> he continues: “To atone for

<sup>66</sup> [Wayman, 1987, pp. 304-306]

<sup>67</sup> [Hamilton Jr, 1895, p. 34], footnote 115 on p. 155, p. 80

<sup>68</sup> Rhodes writes in his 2013 opinion article: “Hamilton, in anticipation of his death, had written his own lengthy obituary in which he listed 17 major accomplishments and inventions he had been responsible for during his two decades as a Chatham resident. One of these, with the assistance of Chatham Alderman Isaac Smith [(1827-1927)], was the conversion of the old Chatham Grammar

this burst of self-conceit, I ruthlessly chop out twelve pages of manuscript; crisp as I count crispness. After all, autobiography, unless by some king or noted showman, is the misbegotten child of morbid vanity and mothered by faith in a patient public – producing nothing but personal pronouns – I,I,I, in capitals. The Frenchmen [sic] has a better chance, with his modest little “je” and lower case egotism.”<sup>69</sup>

### Money, status and poorness

There is something which holds for both Hamilton and his father: both were good at handling other people's finances, but not very good at handling their own. In 1814 Hamilton's father wrote to his mother about their son: “I hope he may persevere, and may retain his proper regard for money as well as learning. I can manage anything but my own money concerns. I hope he will be wiser.” But Hamilton did not do particularly better than his father; he had been very good at handling the problems with the Bayly inheritance, about which Graves even mentioned that “when there was an adequate call upon him for the exertion, he could display much practical ability,” but he seems to have been rather bad at handling the household money flow, buying a polarizing apparatus after, apparently, having borrowed money to come to Cambridge, and a stereoscope in a time when the printer bills were growing. It became especially bad when he was writing the *Elements*; he continued writing despite the large printer bills, although it may be remarked that that was in a race against time.

Yet this must not be read as an indication of poorness; it is an indication of having been able, in principle, to become far richer than they did due to the choices they made in life. Archibald Hamilton could still rent a house for the holidays and marry his second wife in England, and Hamilton did leave quite a legacy to his children.<sup>70</sup>

Things were slightly different with William Edwin who seems to have been poor in his last years although he was, like his father and grandfather, in principle very able to handle money; according to Hankins he had administered Hamilton's estate very well.<sup>71</sup> Thereafter having returned to Canada, in 1869 he wrote to Archibald and Helen Eliza that he was writing for newspapers, was managing immigration schemes, and was investing money at huge profits. But although from his *Peeps* it is

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School to a nursing home for the elderly.” But that is not what William Edwin wrote: “Origination of the Home for the Friendless, in conjunction with I. Smith.” [Hamilton Jr, 1895, p. 13]. Indeed, in Isaac Smith's obituary on the website *Find a Grave* it can be read that he was “a member of the Town Council about nine years” and was “father of the Home of the Friendless, being the principal one to get the home established about 1883.” [www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=104608672](http://www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=104608672) [Accessed 12 Apr 2015]. In Rhodes' words William Edwin thus seems to have been boasting, but in William Edwin's words it is perfectly normal; Smith clearly did not do it alone, and usually the most publicly successful person receives the highest credits.

<sup>69</sup> [Graves, 1885, p. 649], [Hamilton Jr, 1895, pp. 14-15]

<sup>70</sup> [Graves, 1882, p. 44], p. 43, p. 5, p. 167

<sup>71</sup> [Hankins, 1980, p. 377]. But William Edwin did not administer his father's estate alone; in the *Calendars of Wills and Administrations, 1858-1922* of the *National Archives of Ireland* it can be read: “Wills 1865 Hamilton Sir William Rowan Effects under £4,000. 30 October. The Will of Sir William Rowan Hamilton late of the Observatory Dunsink in the County of Dublin Knight deceased who died 2 September 1865 at same place was proved at the Principal Registry by the oath of the Reverend Archibald Henry Hamilton of Clogher in the County of Tyrone Clerk the sole Executor.” [www.willcalendars.nationalarchives.ie/reels/cwa/005014886/005014886\\_00402.pdf](http://www.willcalendars.nationalarchives.ie/reels/cwa/005014886/005014886_00402.pdf). According to the website *MeasuringWorth* in 2014 the economic status value of an income or wealth of £4,000 in 1865 is £3,564,000, the economic power value of that income or wealth is £7,652,000. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 15 Oct 2015].

clear that he did write for newspapers and became an editor, and that he was occupied with immigration, lecturing on immigration in 1869 and twice becoming an Immigration Agent, there is not anything about investing money or making profit.<sup>72</sup>

But that does not say anything about whether or not he tried to invest money; the problem with William Edwin's *Peeps* is that it is not a complete autobiography but rather a collection of fragments of which it may be assumed that, overall, they are told chronologically although he hardly gives dates. Moreover, that what he said he had done, he may indeed have done; ruthlessly chop out pages. He abruptly stops in 1857 with a comma, then mentions in one sentence trips to for instance the West Indies, then continues with winter in Marbleton, most likely in 1869. Following an apparently broken sentence he suddenly tells an extremely vivid story about an evening in the life of some family, without any connection to the rest of the text and without giving any idea of what he had to do with it.<sup>73</sup> But he did write: "After my winter's school-teaching was over, I got a comfortable legacy from across the herring pond, and took things easy while it lasted, making excursions to Ottawa, Halifax and elsewhere." Having travelled to Dublin "to sell the property that remained to him," he writes that in 1872, when he returned to Canada for good, he still had fifteen hundred dollars which he seems to have slowly spent, alternately working and travelling.<sup>74</sup>

What is again entirely similar to his father and grandfather is that he did not strive to become rich. Had he really invested money making huge profits, or even, had he spent his legacy well instead of just enjoying living wealthily while it lasted, he could have become a rich man, yet he clearly lived a different life.

### Pecuniary assistance

According to Hankins, in November 1871 Archibald warned John O'Regan Sr. "not to pay anything further to William Edwin, and he listed for O'Regan the amounts of money that he himself already had given him."<sup>75</sup> Unfortunately, Hankins writes very summarily about this, making it hard to see what happened. At that time William Edwin seems to have been travelling back and forth between Ireland and Canada; in his *Peeps* he wrote that his "seventh and last trip" was from Glasgow to Quebec in spring 1872. And he will not have known about Archibald's letter, since in July 1872 he also wrote, from Canada, to John O'Regan Sr. about investing money for profit.

<sup>72</sup> [Hankins, 1980, p. 379], [Hankins, 1980, pp. 453-454 note 19], p. 371, [Hamilton Jr, 1895, p. 12]

<sup>73</sup> The story goes as follows: "Here is a winter scene – open fireplace, vast legs under the mud-plastered chimney. Light of blazing embers quite sufficient for the daughter, who has been in at forty annual deaths of Christmas gobblers, and her fellow. In the adjoining bedroom, 6x8 feet, lie the old couple, he 84, she frisky and 76, on a vast feather bed, and under another equally voluminous. She commences to "over" his day's misdoings – how he mixed the seed potatoes with the others in the bin; and missed a sale of buckwheat, and didn't get her that paper of pins. He snores, but she has a way of awakening him. He yells, "I wish the d— had your sharp toe-claw." Then to make a diversion, he shouts at the quietly whispering couple in the kitchen, "You 'd better make more noise. If that man of yours is going to stop all night, get him to yoke the oxen and haul in some more wood." The old lady, "shut up, let them alone, you were young yourself once. As I was saying, you're neglecting that runt pig." He snores." [Hamilton Jr, 1895, p. 10].

<sup>74</sup> [Hamilton Jr, 1895, p. 9], p. 20, [Hankins, 1980, p. 379], [Hamilton Jr, 1895, pp. 10-11]. According to the website *MeasuringWorth* in 2014 the relative economic status value of an \$1,500 income or wealth in 1872 is \$414,000, the economic power value of that income or wealth is \$3,140,000. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 10 July 2015].

<sup>75</sup> [Hankins, 1980, p. 379]. Both Helen Eliza's husband and her son were called John O'Regan.

A month before that letter, in June 1872, Archibald had written angrily to John O'Regan Sr.: "In consequence of what William Edwin wrote to [Hankins remarks: Aunt Sydney], I shall certainly recommend her strongly to withdraw the money from whatever investment he put it in, and to invest in some other way. ... I also think she ought not to answer any letters on the subject which William Edwin may write. I am sorry that I entrusted him with the matter at all but it seemed natural and I thought would gratify him in a harmless way. I fear he is totally unfit to be trusted in money matters of that kind. He fancies himself a man of business and has entirely lost the property which my father left him; besides a good deal of my sister's and the greater part of mine, which I am now extremely sorry that I ever gave up to him. My only excuses for doing so is that I really hoped that he would turn over a new leaf after my father's death, and my idea was to accumulate all the available capital that I could into his hands. I think now that the sooner and the more plainly he is made to feel how contemptible as well as wicked his conduct has been, the better. It is possible his eyes may yet be opened in some degree to see himself as others see him." <sup>76</sup>

Archibald was probably right; William Edwin does not seem to have had any second thoughts about getting money from him. In the second part of the *Peeps*, which is about Chatham, he writes without comment: "One evening, when boarding at A. F. Ryall's Prince Edward House, (Chatham), and being very much amazed at the non-coming of some old-country money from my brother, Rev. A. H. Hamilton, a messenger told me that a parcel was lying for me at the Express Office. There was a dollar and eighty-three cents to pay on it. Running back with the parcel to the hotel, I eagerly opened it, and found a huge thick ugly clumsy piece of Spanish cork – that and nothing more. I threw it at the open fire, but passion marred my aim and Alf. cried, "Stop, I see something shining." I picked up the despised enclosure. It was the heaviest cork on record. Cunningly set into the edge, the parson had thickly stuck in half-sovereigns." <sup>77</sup>

It is indeed remarkable how nonchalant William Edwin sounds when writing about Archibald's money. He does not mention when exactly this happened, but describing the arrival of the money in the Chatham part of the *Peeps*, and mentioning that he then boarded there, it is most logical that this happened after 1880, the year in which he settled in Chatham. But that makes it amazing that Archibald sent him money, knowing that he did not want to send any more money after June 1872. It thus allows for the possibility that William Edwin asked him to help him with some money, which would make the story about the arrival of the money even more crude.

Contemplating the question why William Edwin would be so completely silent about his sibling's interests, two possibilities come to mind. The first is that he really believed in his huge profits, and that when they did not come he was ashamed about losing his sibling's money, but since in his *Peeps* he never writes about his motives for anything he thus also did not write about that. Another possibility is that he had seen his father being immersed in his own work for years on end, seemingly unbothered by anyone's advice to handle the writing of his books differently. Hamilton believed so much in his work that even when he had used up the grants for his books that was no reason to change, it was instead a reason to ask for "more pecuniary assistance." And that seems to have been exactly what William Edwin did.

<sup>76</sup> [Hankins, 1980, pp. 379-380]

<sup>77</sup> [Hamilton Jr, 1895, p. 13]. A half-sovereign was a gold coin with a worth of half a pound.

But whatever happened, at some moment he must have learned what Archibald had hoped for; his 'eyes opened in some degree to see himself as others saw him,' since William Edwin has been described by his friend Colles as a "kindly good-natured old Irishman", being "to the last, in his daily life, a consistent Christian example that the very best of us would do well to follow." According to Colles he never asked "a favor of any man" nor "wronged a man to the value of one cent in a business transaction." If Archibald would have known this, he probably would have been very happy.<sup>78</sup>

### Not poor because of a lack of talents

Victor Lauriston (1881-1973), a journalist of the *Chatham Daily Planet*, writes in an 1952 article given by Wayman that with selling the *Market Guide* in his later years William Edwin was only able to "eke out a starved existence." Knowing that makes it easy to regard William Edwin's seemingly bragging remarks about himself in the *Peeps* as being largely fabricated, in any case as regards his own importance; yet they do seem to contain large elements of truth. Referring to William Edwin as "the most amazing brain Chatham ever knew,"<sup>79</sup> Lauriston writes that "W[illiam] R[ichard] Dobbyn's [(1850-1922)] shortlived Tribune brought [Hamilton] to Chatham. He was in Bob Cooper's [(1836-1917)] telegraph office the day the flash came through that President Garfield had been shot. From the mere bald message plus his retentive memory of the Garfield-Hancock campaign, Hamilton threw together an extra. Peddling it on the streets of Chatham he sold 1,000 copies at five cents each."<sup>80</sup>

That would be in accord with an article written by the president of the Chatham Historical Society, Sherriff J. R. Gemmill (1841-1922), giving a "newspaper history of the County of Kent." In the last paragraphs it is written: "'The Chatham Tribune', started by Dobbyn, B.A., in or about 1880, as an independent journal, survived a few troublous years, when the editor accepted a call to a Universalist pulpit in the West, and the plant was bought by the proprietors of the other two offices. [...] My paper would be incomplete without reference to an old veteran who spent the later years of his life in this County – Mr. William Rowan Hamilton, B.A., T.C., Dublin. Mr. Hamilton was a distinguished scholar who came to Canada in middle life, settling in the Muskoka District. Later he came to Dresden and edited the local paper there for a time; then to Chatham, where he directed the Tribune until its demise. Failing regular employment on either of the existing papers, he published a small advertising sheet, "The Market Guide", which appeared on Saturdays, and which the Editor faithfully distributed to the patrons of our far famed market for the benefit of his advertisers."<sup>81</sup>

<sup>78</sup> See p. 248, p. 368, p. 22. See for the election p. 178 of Kealey, G.S. (1991), *Toronto Workers Respond to Industrial Capitalism, 1867-1892*. Toronto, University of Toronto Press.

<sup>79</sup> See p. 366. De Morgan mentions in his 1866 obituary how Hamilton taught William Edwin, in six months, "Hebrew enough to gain a premium when he entered at Trinity College." [De Morgan, 1866, p. 129]. He wrote it to show how very well Hamilton mastered his Hebrew, but it also shows that William Edwin must have been very intelligent indeed.

<sup>80</sup> The campaign had been between James Abram Garfield (1831-1881) and Winfield Scott Hancock (1824-1886), president Garfield was shot on the 2<sup>nd</sup> of July 1881. According to the website *MeasuringWorth* in 2014 the relative income value of an 1881 US \$50 commodity is \$11,900. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 09 Oct 2015].

<sup>81</sup> Gemmill, J.R. (1914), *Historical Sketch of the Press of Chatham*, in *Kent Historical Society : Papers and Addresses*. Chatham: Published by the Society. This bound volume contains six issues, which were printed between 1914 and 1924. The article can be found on pp. 30-37 of the second



And both before and after coming to Chatham in 1880 William Edwin was involved in politics, although in his *Peeps* he just writes: "I pass over my adventures with the Bickford deputation to Dresden, and the excitement caused by my publication of the interview with the late Ed Robinson [(1829- ..) Clancey's liberal predecessor], ex-M.P.P., during Clancey's first campaign. The effect of the latter on the election is well known." The first "adventure" happened in 1873 when he apparently lived in Toronto; the Tory politician Edward Oscar Bickford (1835-1891) lost the election for the representative of West Toronto in the Canadian House of Commons from the Liberal Thomas Moss (1836-1881). The second one happened in 1883; after the conservative James Clancey (1844-1921) won the 1883 election he represented Kent West in the Legislative Assembly of Ontario from 1883 to 1894.<sup>82</sup>

Unfortunately, Lauriston only superficially mentions what had happened when the Tory Bickford lost from the Liberal Moss: "In 1882 Hamilton became editor of the *Planet*. At "the famous Dresden convention" of 1883 he swung the Tory nomination. Throwing a monkey-wrench into the party machine might bring repercussions imperiling his editorial job; but Hamilton took long pride in, this once, being potent and spectacular."<sup>83</sup> This seems not to be entirely correct though; the Dresden convention was in 1873 instead of 1883, and William Edwin thus did not imperil his editorial job at the *Planet* with these actions.

But however briefly William Edwin alludes to his "adventures" he does seem to have had quite an influence. Lauriston does write that he "swung" the nomination in 1873, and about 1883 William Edwin mentions himself that he had an 'effect on the election'; he thus seems to have been almost too modest here. Further writing that he "spoke in French and English in Clancey's campaign" he must have been a good public speaker; indeed, although it is again unknown when this happened, he also writes: "Hardest job in the whole 15 years, was, by request, to rehash my speech at the Skating Rink pic-nic, at a moment's notice, and remodel it with precisely the same ideas reclothed, as if I were giving new points, in order to hold crowd till Collector could come round with the hat."<sup>84</sup>

### Gossip and the *Market Guide*

But then Lauriston continues: "His life had few such interludes of achievement. His life became a succession of rearguard actions fought [...]. He lost the *Planet* Editorship. On September 5, 1885, he started the *Market Guide* – a four page, pink paper tabloid, sold for a nominal price or distributed free, in which he sold sufficient advertising to eke out a starved existence. [...] A pathetic figure, reeling along the streets and sleeping on a straw pellet in the back room of [Ebenezer Wilbury] Scane's

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issue. <https://archive.org/details/papersaddresses00kentuoft>. Both Lauriston's and Gemmill's papers contain some errors about William Edwin's life. If William Edwin became editor of the *Planet* in 1882, thereby signifying the "demise" of the *Chatham Tribune*, he obviously did find another job.

<sup>82</sup> [Hamilton Jr, 1895, p. 11], [Hamilton Jr, 1895, p. 13]. William Edwin may even have known Robinson, who also graduated from Trinity College Dublin. But if the interview caused the Conservative Clancey to win, it was perhaps not a very positive interview.

<sup>83</sup> [Wayman, 1987, p. 308]. The *Planet* was politically Conservative. [Soutar, 1886, p. 32].

<sup>84</sup> [Hamilton Jr, 1895, p. 13], [Hamilton Jr, 1895, p. 15]. The Skating Rink will have been the Victoria Skating Rink in Montreal, an indoor rink which was built in 1862, and according to *The Hockey Writers* in 1875 it was host to the first indoor ice hockey game. <http://thehockeywriters.com/the-origins-of-the-modern-rink> [Accessed 16 Apr 2015]. In the summer various events were organized.



[(1838-1902)] law office, Hamilton was, nevertheless, personally and through his little paper, an influence: he helped establish the Home of the Friendless; shamed the town council into boarding the market shed for the benefit of shivering farm wives; denounced the commitment to jail of lunatics and the “honest poor”; was the first to advocate a joint Chatham-Kent municipal building. At the Macauley Club his amazing erudition made him outstanding. [...] Dropping dead on King Street was not Hamilton’s supreme tragedy. His tragedy was the greatest brain Chatham ever knew gone to utter waste; a genius that might have solved world problems frittered away on editorial squibs and Chatham market quotations; a soul that might have illuminated the world drowning its light in bar rooms and Chatham mud.”

Of course, theoretically Lauriston is right, and his frustration can easily be sympathized with, but if every brilliant mind would have solved world problems, the world would doubtlessly have been quite different now. Not every brilliant person can exploit his or her capacities to the fullest, and it can be said about William Edwin that having been an editor influencing campaigns, writing the texts for the *Muskoka Atlas* and in his later years standing up for injustice around him, is already more than many others have done in their lives. Indeed, William Edwin’s friend, the Rev. Mr. Colles, expressed a slightly different view on the *Market Guide* which was, according to him, even read well; “In many ways Mr. Hamilton was very largely instrumental in freely and ably advertising the city, both locally and far abroad. His method with his weekly paper was unique and most effectual and the bright little sheet so generously distributed will be very much missed by the citizens and by the hundreds who sold upon our market, as well as by the many subscribers from Vancouver to Nova Scotia, and even beyond the ocean.”

Lauriston indeed sounds frustrated with the fact that William Edwin did not do more with his life, yet at the same time he sounds impressed; in the 1952 article he also writes: “A few years ago a Sherbrooke correspondent, writing me, casually mentioned W.E. Hamilton. Seemingly, the tradition of his scholastic attainments still lived there after eighty years.” And even though not giving it the credits Colles gave it, Lauriston certainly acknowledges William Edwin’s talent for writing, describing the *Market Guide* as: “Chatham market quotations, small advertisements, and a few pungent paragraphs, made up the Guide – except when Hamilton had a cause to champion, or a feud with the municipal rulers of the Planet. Then he went to town with a mastery of pungent phrase worthy of Churchill.”

Although it would be almost wrong to state that everyone with a bright mind has failed in his or her life if not having achieved wealth and fame, or at least having solved some world problems, the question why William Edwin, despite his excellent writing skills, his political insights and power to change the course of campaigns, his commitment to the weak and the poor, and his very clear and potent mind, did not end up playing an important and perhaps highly paid role in society, would be worth a further investigation. Lauriston suggests that Hamilton’s “strange make-up” lacked “the ability to capitalize on his admitted talents,” which of course could be true, but it does not explain why he lacked that ability.<sup>85</sup>

But what is certain is that, just as his father, he was much gossiped about. Being so intelligent but not keeping to regular lifestyles, both Hamiltons were seen as very peculiar by people who did not know them very well; about Hamilton Sr. there was

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<sup>85</sup> [Wayman, 1987, pp. 307-308]

gossip, and Hamilton Jr. has been described in rather unpleasant ways. In 2013 Rhodes again adds a detail to William Edwin's story by writing that, because in the late 1860s and the early 1870s he "made several trips back and forth to Great Britain with the last crossing of the Atlantic being made in 1872," "the frequency of these voyages suggest that Hamilton might have been a "remittance man", which was an English term for people who were paid to stay away."<sup>86</sup>

### 9.4.1 Differences and similarities

In a number of ways both Hamiltons thus seem to have had similarities in character, but at the same time they look very different in their writings; Hamilton Sr. almost always sounds extremely polite while Hamilton Jr. does not sound polite at all. Of Hamilton Sr. it is known that, usually, people who knew him liked him, but of William Edwin it is not known whether or not he was a nice person, although in his later years he had real friends. His friend Colles writes: "Mr Hamilton ever sought to be at peace with all men, and though he never flinched from an intellectual contest, nor ever was worsted in one, yet he never sought or provoked a quarrel. He was a life-long member of the Church of England and, while circumstances permitted, he was a regular attendant at Christ Church, and he was to the last, in his daily life, a consistent Christian example that the very best of us would do well to follow." Still, his character can hardly be deduced from the somehow strange writings in his *Peeps* which are observing and descriptive but never philosophical or giving away his thoughts, while Hamilton Sr. hardly wrote a letter without reflecting on his thoughts and feelings, making it much more easy to form an idea about who he was.

One of the reasons for the differences between father and son may have been their very different childhoods. Hamilton had an extremely shielded youth, and despite the losses and early deaths, which must have been terrible and must have had much impact, causing him to grieve deeply when family members were ill or died, and which perhaps made it so hard for him to be alone, he always felt loved and taken care of, and he was always very clear about that. As he wrote to Catherine about losing her: "the great sorrow of my youth was altogether free from that bitterness which attends the change from affection to unkindness: free also from the pain of any diminution of esteem," and that will also have held for the losses and even the separations within his family.<sup>87</sup>

Although William Edwin seems to have had a very happy first five years having been very openly loved by his parents, which will have caused him to basically trust himself, some time before his sixth birthday in May 1840 things changed. Lady Hamilton fell ill and that spring went to live in Dublin for many months, she came back in August, then lived at Scripplestown and in the beginning of 1841 she went to England for a year. She came back a few months before William Edwin turned eight, and both leaving and returning must have had an enormous impact. It is argued before that in those days psychological effects on children were hardly recognized, in any case as regards to what it could mean in later life, and it may have been believed that the separation from his mother for so long was compensated by the people at the

<sup>86</sup> See p. 415, p. 421, p. 360. For the *Muskoka Atlas* see p. 373. For a very unpleasant description see p. 452.

<sup>87</sup> See p. 452, [Wayman, 1987, p. 307], p. 271.

Observatory, including Hamilton and Sydney. That also holds, and perhaps even more, for Archibald who was four when his mother fell ill, five when she went to England, and six when she returned. And next to knowing nowadays how large the impact of youth is on any adult, it must also be realized that Hamilton was very unhappy during that year, missing his wife and mourning Cousin Arthur; the boys doubtlessly felt his distress, which will have made things even worse.

Another difference is that his openly proud father was more often at home than fathers usually were since Hamilton mostly worked at home; William Edwin thus lived in very close connection to his father, something which both his father and his grandfather had hardly known. That may have been a reason why Hamilton had no clue about how to teach his son some independence and therewith perhaps also spoiled him; even when William Edwin was in his late twenties and in trouble, seemingly without any conditions Hamilton invested money to help him again, thereby always allowing him to come back home.<sup>88</sup>

But what probably had even more impact on his later life was that in 1846, four years after his mother had come back home, William Edwin's again very sheltered life was suddenly interrupted. Graves writes: "An offer reached Hamilton in July, which was at the same time a gratification and a benefit. The Rev. Charles Pritchard [(1808-1893)], since made Savilian Professor of Astronomy at Oxford, had been met by Hamilton in 1844 at Windermere. At this time he was head of a school at Clapham of very high repute, which had been selected by Sir John Herschel for the education of his eldest son, and similarly chosen for a son of Francis Edgeworth. Feeling a great admiration for Hamilton, Mr. Pritchard sought to manifest it in a manner at once delicate and generous. He knew that Hamilton's means were not affluent; and putting forward as his chief motive his wish to have the credit of training the sons of two eminent astronomers and mathematicians, he asked as a favour that William Edwin, the Professor's eldest boy, should be committed to his care, on terms which made the pecuniary charge a light one. Hamilton had contemplated entering [William Edwin] as an Exhibitioner at the College of Stackallan, an institution which still much interested him; but the uncommon advantages of Mr. Pritchard's school, the prospect of his son's companionship with a young Herschel, and the kindness which prompted the proposal, won him over to its acceptance. Accordingly in August he took the boy, so long the object of his own intellectual and moral culturing, to Clapham, and paying at the school a visit of some days experienced great delight in observing the comprehensive system adopted for the training of the pupils in religion, in science, in languages, and in physical exercises, combined with domestic intercourse partaken of in turn by those deemed worthy, in the family of Mr. and Mrs. Pritchard."

William Edwin was now in England without his family and with, as it appears from his *Peeps*, a lot less esteem for the school than his father, and likely Graves himself, had. Together with his friend William Edgeworth [(ca 1834-1863)] he may not for long have belonged to the 'worthy ones' who were allowed into the Pritchard family: "Having had the usual doses of mumps, measles, Algebra, Chicken Pock, Latin and Greek, I went to Clapham Grammar School, [England], William Edgeworth, nephew of the great authoress, being my chief chum. We were allowed a half-holiday on Saturday, and having plenty of pocket money, we used to slip into a confectioner's on the common to eat brandy balls, made of sugar, with a few drops of pure French

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<sup>88</sup> See for instance p. 467.

brandy in each. Liking these so well, the confectioner went one better, giving us the straight brandy in a private room, together with cigars, and being caught, we had for a penance to smoke dried cow-dung and drink ink and water, sitting at a barrel, in the playground before the whole school. Another schoolmate was William, eldest son of Sir John Herschel, at whose country seat, Collingwood in Kent, I used to spend the short holidays. [...] Howe was the writing master. I got a prize for a continuous recitation of the fourth book of Virgil, some 4,200 words, and Goldsmith's "Deserted Village", with only three mistakes allowed. But writing was my weak spot, and almost invariably, after giving the work in his own beautiful penmanship in red ink over my scrawl, he would wind up by giving me a smart rap with the *ligaum vitæ* ruler on the side of the head. How I ached for the snail-like years to slip by, till I became a strong man to break him all up. Meanwhile could nothing be done against him? Yes. Every Sunday evening the Principal had the whole school gathered as one Sunday School class. He would take part of a chapter containing one subject, get the ideas of each of us on it, and then give his own. At this class, all masters and ushers, (half-teachers and half-police, to keep the stronger boys in order) were expected to be present, Howe included. It was beyond cavil that Howe used to drop once and awhile into a cosy quiet inn near the common, to have his pot of half-and-half. His naturally red cheeks and blushing nose made him unjustly suspected of more than the actual indulgence. One Sunday evening, when the lesson was half over, Howe came in heated and flurried. Pritchard coldly remarked, "I think, Mr. Howe, you might contrive to set the boys an example of punctuality." Howe said nothing, but hurrying to his seat, squatted down, jumping up with a yell, which was as heavenly manna to myself and co-conspirators, who had firmly embedded a needle, point upwards in the bench. He was too excited to make any explanation intelligible, and Pritchard, now thoroughly convinced that he had been boozing too long at the tavern, looked up at the ceiling, saying to nobody in particular, that "instructors of youth should show some little respect for the decorum of a religious gathering." <sup>89</sup>

William Edwin ends his story about the school: "Severe caning and flogging prevailed. The discipline was stern but the education thorough, and in the term examination papers (printed on our own press) questions were asked outside the text books to test our general knowledge, such as "do stones grow?""

And herein a very basic difference between Hamilton and his son can be recognized. Although Hamilton perhaps missed his deceased parents in an even more severe way than his children missed their mother, it can nowhere be read that either Hamilton or Lady Hamilton were ever beaten or even publicly humiliated. Hamilton mentioned that one of his earliest recollections was having locked himself in in a lumber-room in the holiday house at Glasnevin for which he had received "a very good scolding," and in March 1817 he wrote to his mother that he made "small pits for the workmen to fall into," but Graves does not mention how his mother reacted. He does not seem to have been beaten for this mischief, and he certainly was not humiliated.<sup>90</sup> It is thus easy to judge William Edwin, and it is not known whether his parents understood the influence it had, or the influence of the extreme difference

<sup>89</sup> See p. 283, [Graves, 1885, p. 524], [Hamilton Jr, 1895, pp. 1-2].

<sup>90</sup> See p. 29. Graves comments to Hamilton's letter about digging pits: "I have felt bound to insert this clause, because it records the only piece of mischief known to me in Hamilton's life." [Graves, 1882, p. 49].

between his sheltered life at home and his life at the school. But perhaps they did notice that something was wrong: William Edwin mentions that he was back home with thirteen, which means that he was in Clapham for only one year. He was thereafter tutored at home until he entered college.<sup>91</sup>

### Stories in the *Peeps*

Next to just being funny, many stories in William Edwin's *Peeps* are illustrative for his coarseness, for his rough humour, and his ability to describe scenes in an extremely vivid way. They have the same overtones as his stories about his father had, and illustrate how also his stories about his father could be read, instead of taking them completely literally, as Graves seems to have done.

In one of the stories William Edwin describes how he once wanted to draw money from the bank but he was late and had to run.<sup>92</sup> "I had to run so fast that the perspiration rolled off my head in streams in spite of the sharp frost. I had the cheque ready drawn and presented it at the counter. Bank clerks are prim and dudish models of propriety in business hours, and eminently so, those of this great bank. Judge of my surprise when the paying teller began to snicker, and his hand shook so with suppressed laughter that he could hardly count out the money. Eye-language passed from clerk to clerk and all looked at me and faintly tittered. I was getting mad at their rudeness and seeing the Manager (Christie, I think,) passing I asked him in an angry and harsh voice, whether his clerks were paid to insult depositors. Instead of reprimanding them, he gave a little laugh, and thus encouraged, the whole office burst into a roar. I was fairly raging by this time and shouted at them that I would expose them in the newspaper. The laughing burst out worse than ever till some actually cried – an irresistible crack of cackling. I was speechless with fury. The paying teller handed me a pocket mirror. O, horror! No wonder they laughed. I myself joined them, till I shook again. In my fast running the perspiration streams had dissolved the green dye out of the lining of my felt hat. The beautiful emerald green sweat had frozen as it fell, and from the points of whisker tufts over my ears, were two huge bright green icicles, while small green lines were down my forehead. I was worse than Tittlebat Titmouse with his purple hair in Warren's story."<sup>93</sup>

Another story happened some years thereafter. "When in Bracebridge [Muskoka, Ontario], through the influence of E[lijah] F[ield] Stephenson [(1845-1940)], of whose journal the Free Grant Gazette, I was local editor, and backed by a large petition from the leaders of both political parties, I was appointed Government Immigration Agent. One summer's day, we had worked the edition off on the Washington."<sup>94</sup> The form was still on the bed and the ink on the types. In came a group of well-to-do immigrants – John Bull, Mrs. John and a bevy of buxom Misses Bull, with the Sussex bloom on their cheeks and of various ages, tapering down to a toddling tot. I was

<sup>91</sup> [Hamilton Jr, 1895, p. 2], [Hamilton Jr, 1895, p. 4]

<sup>92</sup> That was in or shortly after 1872, the year in which he finally settled in Canada.

<sup>93</sup> [Hamilton Jr, 1895, p. 11]. The story alluded to is Warren, S. (1841), *Ten Thousand A-Year*. New York: George Routledge and Sons. <https://archive.org/details/tenthousandayear00warr>.

<sup>94</sup> According to the website of The International Printing Museum "The Washington hand press is the invention of Samuel Rust, an American [from New York] who first produced his press in 1821. In 1834, R. Hoe & Company took over his firm and continued to make the Washington. Many firms manufactured the Washington, some well into the 1900s. It was the last style of hand press made in the United States." [www.printmuseum.org/museum/collection](http://www.printmuseum.org/museum/collection) [Accessed 31 Aug 2015].

telling them about the “good times” in Muskoka. As an impressive gesture, being in very white linen sleeves, I rested my left arm on the types and then varied the attitude by facing the visitors with my chin resting pensively on my left hand while the elbow pressed the form. They had been listening with wrapt attention, but now snickered while the approving murmur was followed by tittering among the girls. John Bull himself roared till his sides shook. Nettled, I tasked them with their rudeness. The chorus of laughs got louder the more I showed my anger. At last, Bull says, “Thee tells us there be good times in Muskoka?” “Certainly.” “Thee shurt dont say so.” Turning it up I found that while leaning on the types, I had printed in “6-line Pica Grotesque”, on my shirt the words “Hard Times”, which was a catch-heading for a three-column advertisement.”

William Edwin started publishing the *Market Guide* in September 1885. Again full of irony he writes in his *Peeps*: “One of my hair-breadth escapes was while distributing my newspaper, the Market Guide, across the creek on Saturday. Tom Collop, a big, burly, broad and deep-chested, strong-voiced John Bull, a Crimean veteran withal, who liked to be called plain Tom and not Mr. Collop, kept the noted Collop House, opposite the Registry Office, across the creek. He was always a great friend and admirer of the Market Guide. I left some copies behind the bar and coming back for them in dusk, did not notice the open cellar, and fell down the steps, missing by a hairsbreadth, so to speak, a sharp iron point which would have spitted my brain. Tom had defied the Russian shell in the trenches, but for once I saw him scared. He thought I was dead. Much to his relief I walked up smiling, with a London Advertiser still squeezed under my armpit, and no bones broken, though badly shaken, and after giving me a cordial, he added a tongue-threshing, and gayed me at intervals, till the novelty wore off, after six months. To spite the Chatham undertakers for not advertising in my paper, I have willed my body to Burt, for dissection, he paying all my debts. As I have a double spleen, gizzard, and other specialties, he ought to make a good thing out of it.”<sup>95</sup>

Yet, like his father, also William Edwin cannot just have been a “rugged being”; in his obituary notice he is called “a high-principled journalist”, and his friend Colles enjoyed his “charming society”. William Edwin does not write very kindly about himself, and therefore his intellect and his “high principles” are not very clearly recognized in his *Peeps*, still, a glimpse of his principles and compassion can be seen in one of his stories albeit again indirectly. “One of my experiences was lecturing on Immigration and teaching school one winter in Marbleton [1869-1870], 24 miles from Sherbrooke. I preserve one little incident, because it may be a warning to teachers against hasty judgment. I had a volunteer dictation class after the regular school had been dismissed. In the middle of it, bang came a snow ball at the outside door. I ran out and collared Brazel and another boy at the gate. They held their ground, denying

<sup>95</sup> [Hamilton Jr, 1895, pp. 11-13]. That will have been Robert C. Burt (1847/1849- ..), a druggist who lived in Chatham in 1885, [Soutar, 1886, p. 147]. Next to being the only male named Burt in Chatham in 1885, another reason that it will be him is that in a 2014 opinion article in the *Chatham Daily News* entitled ‘Local mastodon bones discovered in late 1880s’ it is written by its authors Jim and Lisa Gilbert that “After collecting as many bones as he could, [Edwin Bassett] Jones got permission to display the bones found on John Ridley’s farm in the front window of Chatham druggist (fellow “explorer”) R.C. Burt for a week.” [www.chathamdailynews.ca/2014/04/11/local-mastodon-bones-discovered-in-late-1880s](http://www.chathamdailynews.ca/2014/04/11/local-mastodon-bones-discovered-in-late-1880s) [Accessed 20 Oct 2015]. Giving also his body to Burt seems to be in perfect accord with William Edwin’s rough humour.



the throwing. There were no tracks on the snow leading to the side of the school house, and no one in sight on the road. I felt that one of them must have done it. However they solemnly denied it and I never encouraged them in peaching. A year afterwards, Katie Healey, one of the scholars, on her death-bed sent for me, and confessed that she had thrown the snowball and hidden under the school house, which was not banked, and where I never dreamed of looking.”

And despite all his harshness, William Edwin seems to have had a deep respect for his father; Wayman writes in his 1999 article that in his later years William Edwin “loved to talk about the members of that brilliant society in which his father moved.” This respect for his father can for instance be seen in a story which probably happened in 1841, when Daniel O’Connell was chosen as Lord Mayor of Dublin. “So strong was the Tory feeling in the old days, that Rev. Mr. Reid, Rector, voting for Dan. O’Connell, knew, as a matter of course, that he must leave forthwith, and the congregation had it arranged that they were to fill up the church, and, just as he began his farewell sermon, to leave in a body. My father persuaded them to give up the scheme.”<sup>96</sup>

### Extremes meet

The writing styles of Hamilton and his son were very different indeed. In his poetry Hamilton gives insights into his feelings without revealing the circumstances while in his letters he could be more descriptive, but even then most of the time his descriptions are embedded in his thoughts, his feelings and his motives instead of being mere descriptions of what he saw. Reading William Edwin’s texts for the 1879 *Muskoka Atlas*, “designed to satisfy [...] urgent demands from land seekers, immigrants and tourists” for descriptions and maps of the surroundings,<sup>97</sup> it is again immediately apparent how different his writing style is from that of his father; it is extremely direct and very graphical, and without any interpretation. His sentences evoke such strong images that the reader can almost look through his eyes while completely forgetting they are his eyes, which is of course particularly good for such texts, meant to be descriptive.<sup>98</sup>

<sup>96</sup> [Hamilton Jr, 1895, p. 8], p. 452, [Hamilton Jr, 1895, p. 5]. O’Connell was the founder of the Repeal Association, see also footnote 105 on p. 204.

<sup>97</sup> In his *Peeps* William Edwin writes: “I published a sketch of the Free Grant districts, which was embodied in an officary volume, and wrote the descriptive matter of the Muskoka Atlas.” Rogers, J<sup>no</sup>, Penson, S., Hamilton, W.E. (1879), *Guide book & atlas of Muskoka and Parry Sound Districts*. Toronto: H.R. Page & C<sup>o</sup>. <https://archive.org/details/guidebookatlasof00roge>. And his “history in these districts has [...] appeared in the “Muskoka Sketch”.” Hamilton, W.E. (1884), *Muskoka Sketch*. Dresden, Ontario: Times Printing Company. <https://archive.org/details/muskokasketch00hami>. The *Muskoka Sketch* is a sort of memoir of his time in Muskoka.

<sup>98</sup> As an example, some paragraphs are given here from pp. 3-4 of the *Muskoka Atlas*. His sudden reference to himself in the third quote is quite surprising, but seems to fit strangely well in the story.

“Our lakes abound with fish, and their banks with game and fur-bearing animals. Even where they are not traversed by steamboats, these lakes form in many cases a very convenient mode of transit from settlement to settlement. Innumerable varieties of nautical architecture dot our waters – dug-out canoes, clumsy and slow, but capacious to hold merchandise, and un-capsizable; bark canoes, swift, graceful, and most trying to the nerves of the uninitiated; sail-boats and lap-streak row boats; scows for the carriage of hay and lumbermen’s supplies; the raft of lumber with its floating shanty, and other specimens not enumerated. One result is that many of our Muskoka people, young and old, male and female, are good canoeists, and lead an amphibious life for a large portion of the year. [...]



This observation was also made by William Edwin's Chatham friend, Rev. Colles, who wrote: "With a fine education and a highly trained mind he was a keen observer and a charming entertainer, and *au fait* [knowledgeable] upon any subject of conversation, but while his narratives of his extended travels and experiences in many lands were ever instructive and ever-new, he always endeavored to keep in the background every reference to himself and let the interest centre upon the places and circumstances which he so delightfully described."

But it is also this direct writing style which makes his description of himself in his *Peeps* seem so coarse. And that is reminiscent of his mother: of her short letters and the, almost, brusqueness of the few given parts; of her directness in declaring that she preferred Eliza's poems over Hamilton's and did not want to become "patient Griselda", in a time where women were supposed to be literary, philosophical and refined; of her non-Victorian directness and non-philosophicality, which doubtlessly added to Graves' reasons to dislike her so much.

Of Lady Hamilton it was said that she was "fashionable rather than intellectual," but it is not known if Hamilton cared much about fashion. It can perhaps be seen that he did not; although on the photographs he does look properly dressed, the style of his sideburns seems to have remained the same throughout his life, and he wore the same sort of collar for more than twenty years although fashion for men did change. Contrarily, like his mother William Edwin seems to have been fashionable; on his photographs his beard is neatly trimmed, and he writes about his "very white linen sleeves", his green felt hat, and his "beautiful red neck-tie".<sup>99</sup>

Hamilton was usually very humble, but like his mother William Edwin liked to make an impression. From his stories it can also be seen that he could be really angry and so could his mother; she could be openly annoyed as was seen from the short fragment of her "petulant and cross" letter, and really angry as was seen from the "domestic quarrel" she provoked over Dora Disney's letter. About Hamilton only two times real anger is mentioned or suggested; once when "in his early days" he felt his

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"[...] These lakes serve as reservoirs to receive, and gradually give forth, the tribute of violent floods, which otherwise would inundate [sic] the low-lying lands and valleys adjacent to rivers, carrying havoc into many a home, and sweeping the garnered grain before them in their ruthless torrent.

"On Muskoka rivers it is unnecessary to dilate largely in this place. An instance of one navigable for the largest class of steamers which can twist in and out through its puzzling sinuosities, can be seen in the Muskoka river, from the lake of the same name, to Bracebridge. There is depth enough for the largest steamer which the necessities of our increasing commerce can ever call for; but the continual changes of direction require first-class steering, especially for a long steamer like the Nipissing or the Wenonah, the former of which can just turn round at the Bracebridge wharf on her return journey. Under the experienced pilotage, however, of Mr. Cockburn's captains, who know every nook and corner of the river as well as I know my office pigeon-holes, the voyage is safe and speedy. [...]

"It is hard to say where the "river" ends, and the "creek" begins, in the descending catalogue, and a similar difficulty besets one who would try to difference a small lake from a large pond. In fact "creeks", as we call them here, and hardly worthy of a name, would be historic rivers in Europe, sanctified by the genius of Scott, Byron or Wordsworth, and echoing in the household speech of millions of firesides, where the deathless poet had brought such spots vividly before the stranger's eye in all their matchless beauty. [...]

"A sufficient proof of the moist nature of the Muskoka rock is given by the healthy growth thereupon of the cypress and other trees, whose habitat is usually in swamps. Instances are common of large pine trees growing on the bare rock, and showing their hugh [sic] naked roots twining round it, and firmly wedged in some moist cleft of the crag."

<sup>99</sup> [Wayman, 1987, p. 307], p. 147, p. 483, p. 152, p. 21

“honour or truth impugned” and challenged the doer to a duel, and when his angry letters about and hate towards Barlow are described, yet he never seems to have been “raging” in the way William Edwin described himself. And there was the “good honest thundering passion” De Morgan wrote about in connection with Hamilton’s papers, but that was almost doubtlessly told by William Edwin and perhaps thus also exaggerated, and in any case different from being angry with someone.

Wondering how William Edwin could easily live very wealthily, and then when his money was gone live a “gentle stainless life”, the thought comes to mind that that also may have been related to the way he wrote, both in his *Peeps* and in the *Muskoka Atlas*. He was an observer rather than an interpreter, a reporter rather than a philosophical thinker. He was trained as an engineer, not as a theoretical physicist; he used his brains to find solutions for problems at hand or win cases, rather than being inquisitive. If that also was the way he thought about himself, he probably just took life as it presented itself to him; if he had money he would spend it, if he did not have money he would work for it. But since he did not share his thoughts, neither the good nor the bad ones, it is not known if he, deep down, did have an opinion on it all.

Lastly, William Edwin’s wanting to leave his body to Burt for dissection is reminiscent of De Morgan who wanted to donate his “machine” to science, and William Edwin’s unmistakable sense of humour can be recognized in the remarks Hamilton made to De Morgan about his wife, who was amused by his letters. Which leads to another association: William Edwin’s humour slightly resembling that of De Morgan, if his mother and De Morgan shared their sense of humour, William Edwin may also in these aspects more have resembled his mother than his father.<sup>100</sup>

If that indeed was the case, it can be a reason why Graves also disliked him in later years; mother and son hardly were representatives for the highly cultivated upper class. And that can say something about Hamilton himself. Choosing a non-philosophical wife, being fond of his very non-philosophical son, and corresponding a lifetime with a witty, but judging from his letters also hardly philosophical friend, they may have served as a counterbalance for his own very philosophical mind; Hamilton’s tendency to become immersed in his feelings having been balanced by their matter-of-factness, his tendency to philosophize by their down-to-earthness.

William Edwin’s harshness of tone sounds through his entire *Peeps*, and indeed through all the here given stories, with as the only exception the story about Katie Healey’s snowball, showing that it is not due to some inner emptiness. And it is this harshness which is also recognizable in the stories he told to Graves, Tait and De Morgan about his father after his death, mentioning Hamilton’s ‘law of the study’ and the ‘laws of the Medes and Persians’; how Hamilton did not eat during “mathematical contemplation” and they brought in snacks; describing Hamilton during the ‘try-outs’ and the detained, owlish Thompson; the “good honest thundering passion” when someone had touched something in Hamilton’s library; and giving the story which describes a whole day of Mrs. Comerford’s despair, thereby picturing a totally unworldly Hamilton. These stories did Hamilton’s post-humorous reputation not much good since, mainly by their vividness, they withstood the test of time and are retold now in even more extreme ways, yet they completely lost the funny overtones.

<sup>100</sup> See p. 179, p. 225, p. 273, p. 305. For wanting to make an impression see p. 173 for Lady Hamilton, and p. 372 for William Edwin. [Hamilton Jr, 1895, pp. 13-14], p. 365, p. 372, footnote 105 on p. 262, p. 497. De Morgan indeed seems to have liked William Edwin, see p. 214.

Just like Graves William Edwin will not have realized how many years after the writing of his notes these stories would still be told, although that must be quite a compliment for a journalist. Indeed, having been good at telling stories and leaving the judging to other people will have added to the fact that he became a journalist; it seems to have fitted his personality very well. But while William Edwin was described as “possibly theoretical and ethereal, but always elevating,” indicating that his ideas were perhaps not always very practicable, his mother apparently could reach her goals in more practical ways, such as using a trick on her husband as she did in 1854.

### A trick

Although there are many letters from which it is possible to form an opinion about the Hamilton family, where it is easier in case of some family members and harder in case of others, the picture acquired from these letters is, of course, not complete, especially with regard to the Hamilton marriage since it is not known what they said to each other. Lady Hamilton was the only person Hamilton did not write letters to when they were at home, and marriages were not freely discussed in those days. It is clear from scarce remarks that they did talk with each other at home; but what they talked about apart from church matters and their children, and whether Lady Hamilton was strong then or not, no one knows.

It is entirely possible that she could have changed Hamilton's behaviour though; his reverence for marriage, combined with his deep conviction that the household concerns were within his wife's “sphere”, would have made it very difficult for him not to comply to her rules had she insisted, or had ‘scolded’ him a lot or threatened to leave him, or had become extremely unhappy. But reading about Hamilton's general incomplicability, his unstopability, his focus, his running late and his untidiness, even if not as bad as the gossip will have it, or even as William Edwin told after his father's death, thereby being aware of the fact that parts of these traits also ran in his family as Lady Hamilton either knew already or else soon found out, it is hard to see how she would ever have been able to change this behaviour without seriously impairing the goals Hamilton set for his life, thereby making him extremely unhappy. Realizing how he was used to work may have taken up a serious part of the time she needed to think about his marriage proposal.

It is not known how much she still tried to influence her husband within the limits of their happiness, and if she did, how; despite Graves' lamentations that Hamilton did not have a capable wife she probably tried what every strong woman would have tried. And indeed, there is one anecdote of her using a trick on him in order to let him do something he did not want, but which she judged to be better for him, illustrating how she tried to take care of him. On the 4<sup>th</sup> of May 1855 Hamilton wrote to De Morgan: “My wife had managed to get a sort of open carriage made, last summer, very simple and modest indeed, but still a vast improvement on my old outside car, for herself, as I supposed when I was paying for it, but, as it has turned out, almost entirely for me, since she prefers another sort of vehicle for her own independent excursions. I felt a little taken in, at being expected to use it for myself, but have gradually become reconciled to it, and now find it quite a comfortable thing.”<sup>101</sup>

<sup>101</sup> [Graves, 1889, pp. 497-498]. For the conviction that the household was her sphere see p. 151.

Perhaps even before the marriage she may have decided that her best option was to simply let him do what he thought he must do; to make a life for herself next to his and let him happily work the way he needed to work. And if, sometimes, his letters to her were shorter or seemingly more superficial than letters to others as was seen, for instance, after Eliza's beautiful death, that could be taken as a sign that they did have a bad marriage after all. But it is far more likely that he just wrote what she had to know at that moment, preferring to tell her the details at home.

## 9.5 Illnesses

At sixty years of age Hamilton died of a combination of gout, bronchitis and "other ailments", and four years later Lady Hamilton died, being sixty-five and having "rapidly lost her eyesight." Graves ascribes Hamilton's death to his unhealthy lifestyle, or rather to Lady Hamilton's 'relaxed domestic order', which may indicate that he held her responsible for the presumed untimeliness of Hamilton's death. And Lady Hamilton's illnesses seem to have been, in Graves' view, directly related to nervousness in general; to being 'weak of body and mind'.

Of course, in the 1880s a lot of diseases were not discovered yet, or not treatable, especially women's diseases, but also Graves knew that illnesses and early deaths were commonplace while about most sufferers it was not claimed that they had an unhealthy lifestyle or an "extremely timid character". Throughout the biography illnesses occur, not only of Hamilton and his wife, but also of their children, relatives and friends. Next to bronchitis, cancer, dropsy and gout, people in the biography suffered from contagious diseases: cholera, whooping-cough, influenza, pleurisy, scarlatina, smallpox and tuberculosis, and these illnesses were either described as lasting for only some hours, after which the patient died, or as lasting for weeks, with constant fear of death.<sup>102</sup>

Many mothers died in childbirth, as happened to Helen Eliza in 1870, and many babies and little children died, such as four siblings of Hamilton, three of Catherine's seven sons, two of Wordsworth's five children, and Hamilton's cousin Kate who, when Hamilton was sixteen, died while still a child.<sup>103</sup> De Morgan's eldest daughter died when she was sixteen, and the two Rathborne daughters who in 1849 died suddenly in Athlone became twenty-two and eighteen.<sup>104</sup>

<sup>102</sup> [Graves, 1889, p. 203], p. 264, p. 219. Graves had a younger sister, Caroline Frances Henrietta Graves (1819-1855), who died after a "mental breakdown"; it can be wondered what effect that had on Graves. See *The Graves Family of Yorkshire and Mickleton Manor, Gloucestershire, England*. [www.gravesfa.org/gen068.htm](http://www.gravesfa.org/gen068.htm) [Accessed 16 May 2015].

<sup>103</sup> [Graves, 1882, pp. 99-100]. Her age and the illness she died of are not given, but Hamilton wrote to his Cousin Arthur: "On Thursday morning we attended the funeral of Kate. She was laid by the side of her little brother and mine. Even to me the house appears since deserted – how much more to Aunt, who was so particularly fond of her! It was by a merciful dispensation of Providence that she was prevented by her own illness from witnessing that of her child. She has had all the advantages of medical advice and affectionate attention. The attendance of Aunt must have been unavailing, and could but have endangered her health and peace. The separation has been gradually made between them; and when her image returns to her mind, it comes not associated with sorrow and suffering and pain, but such as it was while yet radiant with infantine beauty and untouched by sickness and death. She was the youngest child."

<sup>104</sup> See p. 172. The Great Famine with its extremely many illnesses and deaths is well-known, but there had been earlier years with bad harvests, not so much marked by starvation, but enabling the

Some people did reach high ages though; Hamilton's great-grandmother seems to have lived "considerably beyond the age of one hundred years,"<sup>105</sup> Edward Sabine became ninety-four, Thomas Disney ninety, Aubrey de Vere eighty-eight, Graves became eighty-three, and Maria Edgeworth died when she was eighty-one. Just like Hamilton, many of his friends died when they were about sixty, to name a few: Cousin Arthur became sixty-five, Augustus de Morgan sixty-four, John Graves sixty-three and Lord Adare became fifty-nine. Others died rather young; Henry Rathborne of Dunsinea, whose birth date seems to be unknown, can not have lived beyond fifty-one since his parents married in November 1784 and he died in 1836. Dora Wordsworth became forty-two, Felicia Hemans forty-one, Francis Beaufort Edgeworth thirty-seven and aunt Sydney only lived to thirty-five. Hamilton having become sixty and Lady Hamilton sixty-five, at the time of their deaths they were therefore neither strikingly young nor old.

### 9.5.1 Hamilton

Most of Hamilton's family members died rather young. Apart from the early deaths of four siblings, his mother died at thirty-seven, his father at forty-one, and three of his four sisters died at forty-four. Hamilton's sister Sydney lived until her seventy-eighth year, and his half-sister Annabella, from his father's marriage with Anne Barlow, became seventy-five. Hamilton dying at sixty, thus in-between the ages of his sisters and half-sister, and of the people around him, is therefore not really in need of some explanation other than the medical conditions of this family and the conditions of that era.<sup>106</sup>

Gout is, and also was in Hamilton's days, a rather common disease. It is the accumulation of uric acid crystals in the joints causing sudden attacks of inflammation. Although gout is usually associated with heightened levels of uric acid in the blood, most people with high levels of uric acid in their bloodstreams do not develop gout, which is one of the reasons that even today the cause of gout is unknown, and

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outbreak of epidemics due to poor nutrition. It seems harsh, but in this essay the political turmoil and the famines in Ireland are not discussed since they only slightly influenced Hamilton's daily life; according to Hankins Hamilton "lived far enough from Dublin to escape the turmoil of the city, [and] the famine scarcely touched him at all." [Hankins, 1980, p. 214]. But of course, Hamilton did live in those times, and Hankins describes these events and how they influenced him in part 5 of his biography: "Politics and Religion". Contrary to Hamilton, according to Ward "Aubrey de Vere and his brother Stephen devoted themselves heart and soul to measures of relief, and I cannot doubt that personal contact with the suffering poor, and the strenuous effort to aid his countrymen at that terrible crisis permanently deepened and strengthened the poet's nature." [Ward, 1904, p. 63]. After the famine De Vere wrote a book with a telling title: Vere, A. de (1848), *English misrule and Irish misdeeds. Four Letters from Ireland, Addressed to an English Member of Parliament*. London: John Murray. <https://archive.org/details/englishmisruleir00deverich>. This second edition was printed in the same year. Also Wayman comments on Hamilton during the years of the famine, and concludes with the remark: "There is no reason at all to think that his compassionate nature evaporated in the face of this national disaster, or that he allowed a Tory hardness to predominate." And he adds that Hamilton believed that his life's work could raise the image of Ireland abroad, "so that savants elsewhere should take its values seriously into account in the community of nations." [Wayman, 1987, p. 63].

<sup>105</sup> [Graves, 1882, p. 4]

<sup>106</sup> See for Annabella footnote 32 on p. 37, for Sydney the *History of Australian Science Newsletter* No. 32, March 1994 by G.J. Tee. [www.asap.unimelb.edu.au/hasn/no32/memrls32.htm](http://www.asap.unimelb.edu.au/hasn/no32/memrls32.htm) [Accessed 06 Jan 2015].

although it is treatable, it therefore is not curable.<sup>107</sup> The condition is more common in men than in women, and usually develops after the age of forty. Triggers for acute attacks of gout, yet not causes of the disease itself, are eating foods that are high in purines, such as some seafoods, meat and foods made with yeast like bread and beer, but also starvation since the use of the body's own tissues for energy also heightens the uric acid levels. Another trigger for gout is dehydration, for instance through not drinking enough during warm and damp weather, and the best known trigger is drinking alcohol; in 2014 it was shown that, independent of the kind of beverage, whether beer or wine or otherwise, more alcohol triggers more gout attacks, and that these effects are stronger in the presence of high purine intake or diuretic use.<sup>108</sup> Not directly triggering attacks but bad for people with gout is obesity and a lack of exercise.

Hamilton was of course male and older than forty when he had, in 1856, his first attack of gout. As mentioned, acute attacks of gout can be triggered by, for instance, drinking alcohol, eating meat, starvation and dehydration, and indeed, Hamilton most likely did all that. Living in the well-known wet climate of Ireland, when working on his books, especially in his later years, he did not eat when in periods of "mathematical investigation" or "contemplation", and when he did he only seems to have eaten meat; there is no mention of fruits or vegetables being brought to his study. And although it is not known if Hamilton drank enough while working it seems safe to assume that, next to forgetting to eat, he also forgot to drink. Hamilton once wrote that he drank milk, and it is known that dairy products are good for people with gout. He then mentioned that he probably also should drink less coffee but, perhaps unexpectedly, also coffee is good for people with gout. Even today it is difficult to know what is good and what is not, let alone in Hamilton's days.

But when he did come out of his hermit-like periods, the dinners for which he was often invited were probably lavish, with much meat and wine, and such purine-rich meals are very bad for people with gout. Yet there is not any sign that he was overeating, and although he was not slim he also was not obese, which can be seen from the photographs. He did have enough exercise; it was mentioned that when working hard he sometimes worked standing for hours, and he was a fervent walker.<sup>109</sup>

Also in Hamilton's days it was known that alcohol is bad for gout, yet in many of the biographical sketches Hamilton's gout is ascribed to excessive drinking, which is one of the reasons that in this essay in the last chapters his habits of drinking alcohol will be discussed. It will be shown that he did not drink so much as to make it obvious to ascribe his gout to it; moreover, many people around him had gout without being called alcoholic. The geologist Sedgwick wrote to Hamilton in 1854, just having turned sixty-nine: "A remnant of bronchitis still clings to my chest; suppressed gout takes away my sleep; my kidneys are doing their work in a grating fashion; and I have every day, especially every night, long fits of coalblack melancholy.

<sup>107</sup> See the website *Irishhealth*, Gout. [www.irishhealth.com/article.html?id=2015&ss=gout](http://www.irishhealth.com/article.html?id=2015&ss=gout) [Accessed 17 July 2015].

<sup>108</sup> Neogi, T., Chen, C., Niu, J., Chaisson, C., Hunter, D.J., Choi, H., Zhang, Y. (2014), Relation of temperature and humidity to the risk of recurrent gout attacks. *American Journal of Epidemiology*, 180 (4):372-377. Neogi, T., Chen, C., Niu, J., Chaisson, C., Hunter, D.J., Zhang, Y. (2014), Alcohol Quantity and Type on Risk of Recurrent Gout Attacks: An Internet-based Case-crossover Study. *The American Journal of Medicine*, 127 (4): 311-318.

<sup>109</sup> See p. 418, footnote 37 on p. 280.



A quaternion of maladies! Do send me some formula by help of which I may so doctor them that they may all become imaginary quantities or positively equal to nothing." The treatments were clearly not anything like what we are used to nowadays; Sedgwick also wrote in that letter: "my poor head, they cured its congestion by sucking all the blood out of it by help of leeches applied three different times to my temples, the back of my ears, and the back of my neck." It is not known whether or not he drank alcohol, or if he did how much, and he lived until his eighty-eighth year.

Hamilton also suffered from bronchitis, and with regards to his astronomical observations Graves mentions a "delicacy of chest which made the necessary nightly vigil especially trying to his health." It may have had a serious influence on his life as a practical astronomer; although it has often been said that Hamilton did not make much of that, next to being actually good at it, in his earlier years he regularly did do practical work as can be seen by a story he wrote to his sister Grace in 1831 on his way to Adare: "While I am on the subject of blunders, I must give you [one], for the benefit of Eliza's collection. While wandering on our steamer on Lough Derg, in my frolics, on which I was very moderate, contenting myself with climbing the slanting iron chains to near the top of the chimney, and tapping there with my knuckles, and other absurd but safe things, for the sake of exercise and amusement, I cast my eye on the nearest vessel of the chain which we were towing after us, and read its number as 189. In truth it was 681; but my eyes, accustomed to inverting telescopes, made this my optical blunder."<sup>110</sup>

The bronchitis may certainly have contributed heavily to the deterioration of Hamilton's health; it is known that he often wrote by candlelight for hours, in a room obviously warmed by a fire in the fireplace, something which is not good for anyone's lungs, but definitely not for people with bronchitis. And in his later years he probably did suffer more from it; on the first day of 1865, the year of his death, Hamilton wrote to Archibald: "It was my hope to have gone to [church in] Castleknock yesterday, but my cough was by no means so far gone as to make that safe." Apart from the gout he had hardly ever mentioned to have been ill.

In his last months Hamilton started to have convulsions: according to Graves he suffered, in May 1865, from a very intense, acute attack of gout, and after two weeks of suffering he seemed a little better. But then "alarming symptoms were manifested" and on the 5<sup>th</sup> of June he had an "aggravated seizure" which "took the form of epileptic convulsions which were most severe, threatening immediate and mortal collapse." It was so severe that, although his mental powers returned and he could work again, he did not recover his strength. According to Hankins, William Edwin wrote to John O'Regan that with great difficulty he had been "able to "screw anything out of the doctors" in the way of a diagnosis. They finally told him that the illness was caused by "suppressed gout" that flew first to the head and then to the heart. William Edwin reported that it was "one of the most difficult and extraordinary cases which ever occurred in medical practice," which probably means that the doctors did not know exactly what was wrong."<sup>111</sup> Yet it may have had a direct link to the gout; if in the meantime he had also contracted kidney problems, which can easily happen to people with gout, an accumulation of the waste products the kidneys failed to filter out may have led to the epileptic-like convulsions.

<sup>110</sup> [Graves, 1889, p. 3], p. 65, p. 67, [Graves, 1882, p. 446]

<sup>111</sup> See p. 404, [Graves, 1889, p. 193], p. 255, [Hankins, 1980, p. 376].



## Conclusion

In conclusion, it can be stated that it is far too simplistic to ascribe Hamilton's supposedly untimely death to overeating or drinking alcohol, which certainly can trigger gout attacks but is not a cause of gout. Of course, he may have been eating a diet that was not good for gout; even nowadays the cause for gout is poorly understood, and which kinds of food exactly triggers attacks was hardly known then. But it was known that alcohol can trigger gout attacks, and it is hardly conceivable that if he suffered attacks which were triggered by drinking alcohol he would not have realized that; scientifically and even psychologically always looking for patterns and generalizations he would very likely have recognized links between drinking alcohol and having gout attacks.

And even if he did not, from the time he was developing gout Hamilton saw his doctors often, and they would certainly have warned him. He was always able to listen to good advice and will have listened to the doctors also;<sup>112</sup> finishing the *Elements*, his ultimate goal in his last years, was definitely more important to him than drinking alcohol. But he probably did work too hard.

### 9.5.2 Lady Hamilton

Lady Hamilton had a generally weak health, but it is not clear from Graves' biography how often she was ill or what she was suffering from. Before their marriage Hamilton mentioned that she often looked "pale and wan", that she could sometimes look very well, but that those occurrences were the exceptions. This condition seems to have been unconnected with her serious illnesses; yet it does sound as if she usually did not have much energy.

In Hankins' biography it is further noted that before Mrs. Hamilton moved to the Observatory, "shower baths" were installed there for treatments. It thus was well-known that she had a weak health for which there must have been a reason, but diseases such as for instance auto-immune diseases and many allergenic disorders were unknown. Only a little is known about her symptoms; in a letter written on the 24<sup>th</sup> of January 1833 to her then future husband, she mentioned her "awful situation," and complained about complete loss of appetite, restless nights, bad headaches, a painful hip and severe heart palpitations, yet no specific disease is mentioned. And when she died at sixty-five, not even very young for their times, according to Hankins she had rapidly lost her eyesight.<sup>113</sup>

Next to having, as may be reasonably assumed, not much energy, Lady Hamilton suffered from some serious illnesses, yet apart from her two long lasting 'nervous illnesses' that does not seem to have been worse than the illnesses of people who are not described as having had a weak health. Indeed, almost everyone featuring in Graves' biography was at one time or another seriously ill; for instance, in 1843 Archibald had been "dangerously ill" with scarlet fever, and in 1858 Helen Eliza had even been so severely ill that it took her almost a year to recover. There is one period in which Lady Hamilton seems to have been ill more frequently than usual; she had been "dangerously" ill in the summer of 1832, when she was at Scripplestown and Hamilton

<sup>112</sup> See for instance p. 416 and p. 421.

<sup>113</sup> See p. 146, p. 170, [Hankins, 1980, p. 120]. Hankins does, unfortunately, not give her letter.

was worried about her, and in November 1832, when in Dublin on her way to Nenagh, wanting to consider Hamilton's proposal, she had been "severely" ill. The following February she mentioned her "awful situation", then she was ill in the summer when Hamilton was at the 1833 meeting of the British Association in Cambridge, and "alarmingly ill" in September; this illness lasted for more than a month. But according to Mrs. Bayly her illnesses that summer were related to her first pregnancy.<sup>114</sup>

Yet throughout the biography both severe and less severe illness are mentioned, for instance in 1839 when Lady Hamilton, the children, Cousin Arthur, Eliza and "other near connexions" were ill. In December 1843 Hamilton wrote to Herschel: "My poet-sister is quite well, and in constant correspondence with me. The illness of another sister agitates me at present. Indeed my wife, and one of my two sons, have been very poorly of late, but are, I trust, recovering." There was the heavy cold Lady Hamilton suffered from when in May 1855 the group of "deaf and dumb boys" visited the Observatory but she did not feel so sick as not to be able to lay out "a comfortable luncheon", and the illness she had just "wonderfully recovered from" at the time Hamilton wanted to make the trip with Helen Eliza on the outside car in 1864.

But Lady Hamilton's two long lasting illnesses, in 1840-1841 and in 1856, were different. Graves describes these illnesses as being "similar" and of a "nervous character", "affecting her mind and spirits," which implies that these illnesses could not be diagnosed, opposite to her aforementioned acute and severe illnesses. He does not give specific reasons for the doctors to come to this conclusion, and he does not provide symptoms, yet it would be interesting to try to find out what she was exactly suffering from. Of course, it would take a physician to see whether she could really be diagnosed from information in the letters which are kept at Trinity Library, but some plausibilities, and implausibilities, can be discussed here.<sup>115</sup>

### No unhappy childhood

Nervousness can of course be due to an unhappy childhood, but the idea that in Lady Hamilton's case her 'nervous illnesses' would result from a, for instance, too strict, too demanding, or loveless upbringing, does not seem to be the most obvious diagnose. In Graves' biography there is nothing which would indicate a bad childhood; although nothing further is known about her father, Lady Hamilton could get along very well with her mother, and so could Hamilton. Moreover, according to Graves Lady Hamilton was an attached wife, and also the three sisters named in Graves' biography seem to have had good marriages, which might indicate a healthy ability for attachment and bonding.

Lady Hamilton could also get along well with her sisters; from early 1841 until the beginning of 1842 she was welcomed in her sister's house in England, and she often stayed with her other two sisters, the Rathbornes at Dunsinea and the Rathbornes at Scripplestown. Graves explicitly mentions that the Dunsinea children John and Kate were very attached to their aunt and uncle, and in their later years they even helped them financially. The Bayly family thus seems to have been an 'attached family' as Graves would probably call it, and there is not any indication that Lady Hamilton was an overall unhappy person, although in February 1833 she suffered from "bad

<sup>114</sup> [Graves, 1885, p. 448], p. 19, p. 127, p. 137, p. 165, p. 168. Graves uses the word 'dangerous' for an illness from which the patient might really die. [Graves, 1885, p. 186].

<sup>115</sup> See p. 198, [Graves, 1885, p. 452], p. 217, p. 245, [Graves, 1889, p. 51], [Graves, 1885, p. 334].

spirits and gloomy fits". Which did not at all trigger Hamilton to renounce the marriage; it led him to write encouraging letters. It is therefore easy to surmise that the fits, together with her "awful situation", may have been due to not having much energy which was especially burdening during psychologically very difficult periods; she had, after all, taken a long time to consider Hamilton's marriage proposal.<sup>116</sup>

### No nervous character

Graves describes Lady Hamilton as having been "extremely timid", something which could, in difficult times, also be a trigger for an "illness of a nervous character". It was shown earlier that it is very doubtful that she really had an overall nervous character but of course, as can happen to anyone, she may have been nervous or insecure by periods as she probably was in February 1833. And when in 1832 Hamilton thought she had agreed to marry him but heard that she had not, he wrote to her that he needed much instruction and discipline through "the affection to a pious woman, who is herself under the teaching of the spirit of God, though for that very reason conscious of faults and deficiencies in herself which others do not see." He had apparently noticed that she was self-conscious, but he did not really understand why.

But then Hankins writes that, in the beginning of the correspondence after her acceptance, Hamilton addressed her as "my dearest Helen" while she answered writing "my dear Mr. Hamilton" or "highly esteemed professor", but that "as their wedding approached, their correspondence took on a teasing and affectionate manner." This can be an indication that she was not intrinsically insecure but that perhaps, knowing that she was "concerned with position," she was initially insecure because she had never expected that such a famous man, which he already was by then, would want to marry her, and as seen from her perspective and in that era such an initial anxiety would be rather easy to sympathize with. Further realizing that it soon became apparent that she was used to speaking her mind, and was not afraid to write cross and even bitter letters, she thus likely was not simply ill due to a nervous character.<sup>117</sup>

### No chronic illness

Lady Hamilton often looked "pale and wan", but she also could have a bloom on her cheeks in moments of health and excitement. She was not too fragile to ride a horse as seems to be apparent from the letter in which Hamilton wrote about how he was warned not to frighten a certain lady by talking about putting her on Planet, and then warned his wife-to-be to "be careful how you talk of such a project to any timid people of your acquaintance." And in 1862 Hamilton explicitly mentioned that she had an Arabian, which she will have used for her "independent excursions."<sup>118</sup>

<sup>116</sup> See p. 259, p. 153. Perhaps, as any family, also the Bayly family was not always perfect; after Mrs. Bayly's death one of Helen's brothers contested the will and Hamilton had to interfere, which he did well, see p. 43. And in 1859 a sister and brother-in-law of John and Kate Rathborne, who lived in Rhyl, North Wales, seem to have charged a large sum of money for boarding Helen Eliza who was recovering from a very serious illness. [Hankins, 1980, p. 374], [Graves, 1889, p. 117]. This was repeated in 1864, when they boarded William Edwin in Barrie, Ontario, again asking the Hamiltons a large sum of money. [Hankins, 1980, 374].

<sup>117</sup> See p. 175, p. 137, [Graves, 1885, p. 12], [Hankins, 1980, p. 118], p. 173, p. 150, p. 179, p. 175.

<sup>118</sup> See p. 176, p. 242, p. 376.

She thus could ride a horse, she could make long walks as she did in October 1843 when Hamilton, walking with her along the Royal Canal, discovered his quaternions, and she had normal pregnancies; having had long healthy periods she will not have been chronically ill.

### No postnatal depressions

Lady Hamilton had normal deliveries without additional complications. It is known that she gave birth to all three children at the Observatory; William Edwin starts his *Peeps* with the sentence: "A squealing but healthy baby, embryo of the present writer, blinked its sore eyes for the first time in the north-east upper bedroom of the Dunsink Astronomical Observatory." About Archibald's birth Hamilton wrote, in 1852, to De Morgan: "Without any deliberate pre-arrangement, we were brought into the world by the same accoucheur, old Dr. Labatt (who was not the person engaged to attend my wife, but was sent out by him), within an hour or two of being exactly thirty years asunder!" And also Helen Eliza was born at the Observatory; Lady Hamilton, who had lived in Dublin, came back home to give birth.<sup>119</sup>

Hankins suggests that Lady Hamilton suffered from postnatal depressions: "She bore three children with no serious physical problems, although each birth seems to have been followed by a period of severe depression." But that is actually not the case; four months after William Edwin was born, in August 1834, she went to Bayly Farm to take care of her mother. Hamilton wrote to De Vere: "As to Mrs. Hamilton and her boy, they are both quite well, and going to her mother in the south," and according to Graves in the following months "the state of her mother's health detained her in the country." Moreover, in October 1834 Hamilton mentioned in a letter, written at Bayly Farm to Lloyd: "I have enjoyed a most luxurious quiet, far greater than any I have ever had at home." That would have been utterly impossible if his wife was suffering from a postnatal depression, something which would have been very upsetting to him as indeed her later 'nervous illnesses' were.

And also the second time that Lady Hamilton went with the children to her mother at Bayly Farm she was not ill; her mother was ill. Hamilton wrote to Eliza: "I have been at Bayly Farm till lately, since my return from England. Helen and the two boys are in good health."<sup>120</sup> Lady Hamilton's 'nervous illnesses' were thus clearly not due to her pregnancies; around the birth of their sons there was no indication of illness, when Helen Eliza was born she had been ill already, and in 1856, at the time of the second "illness of a nervous character", she was not pregnant at all.

### Two periods of 'nervous illness'

But if her 'nervous illnesses' were not due to an unhappy childhood, a nervous character, a chronic illness, or her pregnancies, it might be useful to look at the circumstances in which she suffered from the two illnesses "of a nervous character". And there seems to have been a large difference between both periods of 'nervous illness', which might contain some clues.

The second period of illness, in 1856, lasted for a number of months, making the duration of the first illness, in 1840 and 1841, more than four times longer than that

<sup>119</sup> [Hamilton Jr, 1895, p. 1], p. 223

<sup>120</sup> See pp. 178-179, p. 185.

of the second one. After having fallen ill for the first time Lady Hamilton went to Dublin because she had, due to the unrest in the country, “come to entertain a feeling of terror at the idea of remaining in a house so lonely in situation as the Observatory,” and it can therefore easily be speculated that this first illness was much worsened, or its duration extended, by these fears, while in other circumstances it would perhaps have been more similar to her illness of 1856.

Her surroundings having had such a serious influence on her state of mind makes it quite understandable why she was diagnosed with an “illness of a nervous character”; the doctors being unable to find a known disease her anxiety was probably easy to be seen. It still does not say anything about her supposed general lack of energy, but the fact that she did not have postnatal depressions does not imply that she cannot have been suffering from depressions in general; bad childhoods or upbringings are of course not the only causes for depression.

## Depression

The World Health Organization gives symptoms of depression in people who do not have a history of manic episodes; this is a type of depression which can be chronic with relapses, especially if it goes untreated.<sup>121</sup> “In its typical depressive episodes, the person experiences depressed mood, loss of interest and enjoyment, and reduced energy leading to diminished activity for at least two weeks. Many people with depression also suffer from anxiety symptoms, disturbed sleep and appetite and may have feelings of guilt or low self-worth, poor concentration and even medically unexplained symptoms. Depending on the number and severity of symptoms, a depressive episode can be categorized as mild, moderate, or severe. An individual with a mild depressive episode will have some difficulty in continuing with ordinary work and social activities, but will probably not cease to function completely. During a severe depressive episode, it is very unlikely that the sufferer will be able to continue with social, work, or domestic activities, except to a very limited extent.”

All these symptoms strikingly fit Lady Hamilton. Before the marriage, in February 1833, Hamilton found that she could suffer from “bad spirits and gloomy fits” and she told him about her “awful situation”, mentioning a loss of appetite, restless nights and further unexplained symptoms, and from the foregoing description it can thus cautiously be inferred that she was mildly or moderately depressed. That is again rather easy to imagine; having had to make such a difficult decision as whether or not accepting Hamilton’s marriage proposal, and after her acceptance perhaps often doubting whether she made the right choice, may have laid a serious burden upon her already weak health. It is to be hoped that when their correspondence became “teasing and affectionate”, she also felt better.

During the diagnosed illnesses “of a nervous character” no physical symptoms were mentioned other than the palpitation which forced her to “lay down the pen” when she was in England. In any case in 1856 she was able to walk; Graves writes that Hamilton “encourages her pastor Dr. Sadleir of Castleknock, to enter into religious conversation with her, urging with truth and wisdom, “I have known even the body benefited by a courageous reference to things of a higher life”: he mentions

<sup>121</sup> World Health Organization, *Depression, Fact sheet N° 369, October 2012*, [www.who.int/mediacentre/factsheets/fs369/en](http://www.who.int/mediacentre/factsheets/fs369/en) [Accessed 01 Nov 2014].

incidentally, "I have been walking nearly the whole of this morning with Lady Hamilton in the garden." Unfortunately, doctors in those days hardly knew anything about depressions, either medically or psychologically; the only thing people around her could do was take care of her, talk with her and hope that she would recover.<sup>122</sup>

Surmising that Lady Hamilton indeed may have been prone to depressions as was assumed by her being easily influenced by unfavourable circumstances and at times suffering from undefined symptoms, bad spirits and gloomy fits, it was worth trying to search for indications of what could have triggered her two long lasting illnesses "of a nervous character". And that was quickly found; both times there were circumstances of which it is easy to imagine that they could trigger a period of depression.

### The first period

Helen Bayly took a long time to consider Hamilton's marriage proposal if six weeks is really a long time, but in any case, the people around her were afraid it lasted too long. Her motives are unknown, but taking such a long time, and not wanting him to come to Nenagh in the meantime, means that she was really thinking it over. She had known him for a long time already; what she knew about Catherine before his marriage proposal is unknown, but she did know from close by how much he had been in love with Ellen de Vere<sup>123</sup> and how badly he had handled her rejection; as interested neighbours the Bayly women will doubtlessly have discussed his hopes and failures in courting Ellen de Vere. And they will have seen how he changed thereafter, in the summer of 1832 when he discovered how to handle his melancholy moods.

But the Bayly women will certainly also have discussed his daily habits; they knew how he lived his life, often working for many consecutive hours. Helen Bayly must have realized very well that she would have a marriage as if living apart together in the same house; that periodically he was not to be disturbed and she would often have to go to bed alone. It would certainly be no ordinary marriage, yet it is also clear that her doubts did not include that she thought him not lovable enough; she cried when they kissed for the first time.

Something else she knew she would have to live with was his inner certainty that he would never forget Catherine and Ellen; he was extremely clear about that, feeling that it belonged to his personality, to his romanticism perhaps, as science and poetry belonged together. For most people it is easier if their new partner simply rejects his or her former feelings, but he did not intend to do so; on the contrary, he accepted his remembrances, accompanied with recurrent, though usually short fits of gloom, and he did not even hide them from her.<sup>124</sup>

The combination of the aforementioned circumstances, secluding himself for long periods of time and immersing in remembrances every now and then, was very much to ask for from a wife and Hamilton clearly knew that. And in the same way it can be questioned whether Ellen de Vere would have been able to accept his secluded periods and his remembrances, in her case those of Catherine; it can easily be

<sup>122</sup> [Graves, 1889, p. 51]. Hamilton's quotes will have been written in one of his notebooks; it does not seem as if Graves quoted it from a letter.

<sup>123</sup> See the sonnet beginning with "I have not hid from thee my wanderings", p. 131.

<sup>124</sup> See p. 141, p. 135, p. 131. His not hiding his remembrances from her can be read in the sonnet beginning with the words "Forgive me, love", written in November 1832, in which he seems to have realized that he could lose her again because of them, see p. 134.

surmised that Hamilton did not try harder to persuade her knowing that she would not. In Catherine's case it is of course entirely unknown; he was nineteen, it was a deeply impressive first love of which no-one knows how long these heavenly feelings would have lasted, and if he would ever have been able to work the way he later would. It could have been the perfect marriage, but who knows.

In the meantime, Hamilton did not doubt his marriage proposal to Helen Bayly for one second; all his letters and poems sound like if he had had his way he would never even have left her again for a day. And if, as assumed, he indeed realized what he was asking from a wife, that will have had influence on what kind of wife he had been looking for. Hamilton had defined his different feelings for the three women in his life, Catherine, Ellen and Helen, as Sweet Piety, Enthusiasm and Truth, and if he really wanted to continue to work as he had done before, and there was no indication that he wanted to change that, choosing for 'truth' was perhaps even the best choice he could have made.

Indeed, next to piousness, Helen Bayly had one eye-catching characteristic: she was extremely truthful and dared to speak her mind, which was apparently exceptional in their time with its extremely separated and fixed roles of men and women. But there was one problem left and she must have talked about that since Hamilton reacted to it in his long letter of the 26<sup>th</sup> of November 1832; and that was her weak health. She will have seen that Hamilton was becoming more famous by the day, and knowing that members of the upper class would bring their servants when coming to visit, causing a heavy burden on the household, she must have realized that she would not be able to cope with that. Perhaps it would be possible in times when her health was stable, but that was very often not the case. Marrying him might hinder the quiet life she simply needed; a life in which she could rest whenever she had to, and be ill without worrying that someone important would come to visit and she would not be able to bring that to an end successfully.

Truthful as she was, she made her conditions clear since on the 10<sup>th</sup> of December 1832 Hamilton "reassured her that he would never force her to go to Court and that they would lead a retired life at the Observatory." And although the rules for courtship were very strict, making it almost impossible for Hamilton to withdraw his proposal, this was a condition he could have said no to. But he did not; on the contrary, he promised her a retired life, and that was the proposal she in the end accepted.

She thus accepted a proposal to live a strange life, with a husband who lived in the house most of the time yet not to be disturbed as if he was not at home at all, and still it was important for him that she was around; she thus would have to make a life of her own next to his, as good as it would get. What she asked in return was a life she could handle, which she would be able to uphold despite her weak health, in that very strict, and for women extremely demanding, society. In a time where marriages were seen as holy, but also as obligatory, this was the marriage they agreed upon.<sup>125</sup>

### 9.5.3 The promise of a retired life

And then, after some happy and quiet years in which she was allowed to periodically live with her mother to take care of her, he came home on a beautiful day, they were

<sup>125</sup> See p. 265, p. 139, p. 141, p. 156, p. 179, p. 105.



very happy to see each other again, and he asked her to join him on a three-week visit to the Marquess of Northampton at Castle Ashby in England. Judging from Hamilton's letter she must have felt wonderful; Hamilton was very loving and persuasive, clearly hoping that she would share his happiness about all his new friends. Indeed, the more famous he became the more he entered the upper classes of society, befriending Earls and Marquesses and learning to know ever more famous scientists, and he really believed that it would make her happy also. They walked and talked much that day and according to Hamilton she was looking very well, and next to seeing how much he wanted it, perhaps because she felt very good and healthy and strong, she must have decided to grant him the pleasure of such a visit, and she agreed.

Only within a few days thereafter, on the 3<sup>rd</sup> of September, Lady Hamilton fell ill again. But they were also visited; Hamilton wrote to Northampton as a post scriptum to the letter in which he had described his happy homecoming: "While I was writing this letter, a visit was made to the Observatory and to me by a party, of whom the most distinguished man was [Christian] Ehrenberg [(1795-1876)], who was with you a guest of Dr. [Thomas] Headlam [(1777-1864)] at Newcastle." He had been writing that letter while he was sitting in her bedroom "in the quality of a nurse"; the party thus arrived while she was ill and he had to leave her bedside. It can easily be surmised that her heart missed many beats; being so confronted with her weak health so shortly after her acceptance of an upper-class visit was probably more than she had bargained for.

The visit was made in October 1838, and according to Graves it was a very happy visit; in a letter to Eliza "Hamilton mentions the varied employments of the day, in which reading aloud had an honoured place, and speaks of visiting, with Lord Northampton, the Observatory of Captain Smith at Bedford, and of attending a concert of Mori's at Northampton, a fact to be recorded, not only because it was "not in his way," but because on receiving some sportive challenge he composed in the concert-room [a] Sonnet, which at least is a proof of his power of abstraction."<sup>126</sup>

### Never again

But such a visit was never again repeated, and there must have been reasons for that. One of the reasons can probably be deduced from Hankins' sentence that Hamilton wrote to Cousin Arthur that "every possible attention was paid to them, "especially to Helen, to prevent her from feeling shy."'" However well-meant, that may have caused her much anxiety if she did not like to be at the center of attention or, in case she theoretically would have liked that, if she did not have enough energy to really enjoy it, longing to be left alone and rest.

In any case, Hamilton was rapidly forgetting his promise of a retired life. His fame was ever growing, he was reaching the rooftop of society, and in his letters to his wife, for instance in 1837 from Dunraven Castle in South Wales, he wrote sentences as: "Let me just tell you now, that after a journey of two hundred miles through very beautiful scenery, I arrived here in time for dinner yesterday, and found the place to be one of the highest order of romantic grandeur on the very verge of precipices, against the bases of which the sea continually dashes. In storm the scene must be

<sup>126</sup> See pp. 196-197, [Graves, 1885, p. 274], [Graves, 1885, p. 277].

magnificent, but even in a calm it is fine. I wish you were here to see it." And in 1838 he wrote from England: "we proceeded along Ullswater, the most beautiful of all the lakes of this lovely country; such at least it is in my opinion, and I hope sometime or other to have your opinion too upon the point."

And he had already received the next invitation; Graves writes that in August 1838, even before the visit to Lord Northampton, "A letter of acknowledgment from Lady Frederick Bentinck is urgent that he should, in the summer of the next year, again visit Lowther riverside, and bring Lady Hamilton with him." In all his happiness Hamilton had even written a sonnet about how happy she would be also, holding out to her the prospect of many happy visits: "Friends have I won who shall be thine; the wise And great of Britain, for my sake, not few, Will welcome thee, and for thine own sake prize: And Ladies, rich in noblest courtesies, With love maternal, or sororal, view Thy gentleness, and give thee honour due."<sup>127</sup>

They never accepted the invitation to visit the Lowthers, and indeed never repeated the visit to Lord Northampton, or any visit like it. Although it is of course not known what happened exactly, there is some indirect clue. In the beginning of 1840 Hamilton wrote in his journal about 1839, after mentioning how many people around them had been ill amongst whom Lady Hamilton, "We gave up all visits, to Lord Northampton and other friends except to those who were sick; made no excursion for pleasure, even to the county of Wicklow; did not attend the Meeting of the British Association at Birmingham."<sup>128</sup>

This is, in a way, a strange list. Hamilton seems at first to write about the both of them; yet Lady Hamilton never accompanied him to a meeting of the British Association. But it also does not sound as if he was writing just about himself, and therefore it can cautiously be assumed that he really thought that his wife would more often accompany him after their happy visit to Lord Northampton. And that in turn could indicate that she had not complained; perhaps she had liked the visit and hoped she could be such a wife after all.

### **The first "illness of a nervous character"**

But then, in November 1839 she became pregnant again, being thirty-five years of age now and apparently, something was wrong. She became ill, but Graves does not mention how or when exactly she was diagnosed with an "illness of a nervous character"; he only indirectly calls this illness 'nervous' when describing her 1856 illness, remarking that this illness was "similar to that by which she was affected in 1840-41." While describing a visit from De Vere to Dublin at some time in Spring 1840 Graves mentions, almost as a subordinate clause, that "She was at this time in delicate health, looking forward to her confinement, and from the disturbed state of the country, and her extreme timidity of nature, had come to entertain a feeling of terror at the idea of remaining in a house so lonely in situation as the Observatory." Which is actually not too strange given that she was pregnant and thus doubtlessly feeling vulnerable, while according to Hankins around that time there was a sharp increase in agrarian crime and terrorism in the countryside.<sup>129</sup>

<sup>127</sup> [Hankins, 1980, p. 123], [Graves, 1885, p. 208], [Graves, 1885, p. 266], p. 196

<sup>128</sup> See p. 198.

<sup>129</sup> See p. 204, [Graves, 1889, p. 51].

And at about the same time that she became pregnant, in November 1839, according to Graves there “came a warmly affectionate letter of Lord Adare, in which he contrasted the intellectual pleasures of his days at the Observatory with the less congenial duties of the magnate of a county, and invited Hamilton and his wife to visit Dunraven Castle. In his reply, Hamilton, thanking Lord Adare for the invitation, expresses great uncertainty as to his power of accepting it.”<sup>130</sup> Graves does not explain why Hamilton could not accept the invitation, and it is unknown if he then already knew that his wife was pregnant again.

But having been so ill that Hamilton noted it in his journal and then becoming pregnant, or having felt ill because of the pregnancy, she must have realized again the limits of her health, and, as assumed, usually having little energy already, it is very easy to imagine that suddenly the whole society thing, of which they had in advance agreed that he would not ask that from her, overwhelmed her, again becoming aware that she would not be able to live up to that. Being frequently ill, combined with having little energy, means not being able to make plans in a tight schedule and never being sure about having enough energy on the day of the event, and that can bring along much uncertainty; having a weak health asked, certainly in her time and circumstances, for a very sheltered life. But she knew that her husband enjoyed such visits very much, and as an attached woman in those very demanding Victorian times she probably also wanted him to be able to enjoy that.

Not being able to give him what he wanted so much just because she could not handle it physically can absolutely have been a trigger for depression; she may have felt to fail him as a wife, and it is entirely possible that all her fears, making her consider his proposal for such a long time, came through. It is not known whether she realized what happened, if she felt trapped in a terrible dilemma, blamed him silently or even openly for forgetting his promise of a retired life and making life miserable for her, or if she just lost hope not knowing why exactly; in either case it must have been awful for her. And since pregnant women were treated as patients, dying in childbirth was a real option while at the same time depression can worsen fears, it seems to have been almost unavoidable that she would “come to entertain a feeling of terror.”

It is not known whether or not she reminded him of his promise, but after he brought her home from England in the beginning of 1842, a journey during which they will have had a lot of time to talk with each other as they more often seem to have done after having been apart for a longer time, there were never again even mere remarks about such visits. Except for the visit to the Queen in 1853; Lady Hamilton did come along with her husband to visit her, but that was decided almost on the spot since the visit took place on the same day the invitation came; perhaps she simply, and coincidentally, felt well that day. That is something entirely possible for people with little energy due to undiagnosed, or diagnosed but hard to treat, disorders, but it makes it extra hard for the people around them to stay aware of the fact that the days of good health are the exception. Hamilton had realized it once when he wrote “to you, in my habitual conception of you, beauty and bloom are accidents, very pleasant ones no doubt, while they last, but separable with scarce any injury.” But that was before their marriage, and it is not known how aware he had stayed thereof in daily life.<sup>131</sup>

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<sup>130</sup> [Graves, 1885, p. 303]

<sup>131</sup> See p. 197, p. 216.

## The second period

Although Graves mentions that Lady Hamilton's illness of 1856 was "similar to the illness of 1840-41," this time the illness lasted considerably shorter, probably due to the fact that there was less external stress for the Hamiltons. But also this time there were very obvious circumstances which could trigger a depression when realizing these were Victorian times, and women had but little direct influence on their marriages and even on their lives.

As described earlier, in the beginning of May 1855 Lady Hamilton had made her husband the compliment that he had "grown quite a good boy of late – so sociable and neighbourly," but she had feared that "it was too good a thing to last." Times had indeed been difficult; in November 1853 Catherine had died, and during the distressed months thereafter Hamilton had written many letters to many people. Even if Lady Hamilton did not know how very difficult he had found coping with Catherine's death, and with what he had heard in their "parting interviews" about her love for him and her forced marriage, she doubtlessly knew that it had been difficult for him. But according to Graves in the summer of 1854 a "cheer was given to Hamilton's spirits" by the conferral of the living of Loughcrew to his cousin James Alexander and by the paying by the Board of Trinity College of the expenses for the printing of the *Lectures*. Moreover, he had travelled with Archibald and had made the joke about her being an abstract idea; things had finally started to change for the better again.

Around the same time, the summer of 1854, she had tricked Hamilton into buying a carriage for himself by letting him suppose it was for her. He had felt "a little taken in" but after having become used to it, he rather liked it. Doing her best to take care of him, and perhaps cheer him up, she apparently tried hard to find ways to let him do things he did not want to do but of which she thought it would be better for him. Indeed, her compliment that he was "so sociable and neighbourly" and the fact that Hamilton repeated her compliment in a letter to De Morgan who, knowing all about Catherine and the difficult months thereafter, apparently would understand what that meant, both show that Hamilton had indeed slowly been returning to his old sociable self.

It could be surmised that Lady Hamilton made her remark about his growing sociability while alluding to the years in which Hamilton was writing the *Lectures*, and which he finished in July 1853, but that would not be very logical since she made her remark in the beginning of May 1855. After the finishing of the *Lectures* they seem to have had some good months in which Hamilton, for instance, visited the 'Great Industrial Exhibition'; that quiet period, and visiting the Exhibition apparently also sociable, lasted from July until October 1853, the month of Hamilton's "parting interviews" with Catherine. Lady Hamilton's 1855 compliment will therefore have alluded to Hamilton's year of slow recovery after his months of grief, not to the last years or even to her husband in general. Her fear that it would perhaps not last long may simply have been due to the fact that even if nothing dramatic would happen again, he would always, periodically, be immersed in his mathematics.<sup>132</sup>

And then, obviously hoping that finally her husband would become happier again, making also her life happier, and apparently glad that every now and then her husband came with her to visit friends and family even if that happened only between

<sup>132</sup> See p. 224, p. 218, p. 376, p. 215.

periods of mathematics, about a month thereafter, on or shortly before the 14<sup>th</sup> of June 1855, she found Dora Disney's letter, which had fallen out of Hamilton's pocket. According to Hankins she "provoked a domestic quarrel" since she thought that Dora Disney was "fast taking the place of Catherine in Hamilton's affections."

Finding such a letter at a time she was feeling optimistic about her marriage again must have come as a terrible shock, and it makes her quarrel very easy to understand. Already before their marriage Hamilton had told her about Catherine and Ellen, and she had accepted him in marriage knowing that he would not forget them; that he would not even try to pretend to have forgotten them. But the thought that a new woman, alive and living very nearby, would take up that place would be very difficult in our time, but in her time, in which matrimony was sacred and divorce not an option, such a thought must have been devastating.<sup>133</sup>

### Eliza's letters

But perhaps she already had felt something coming; two weeks after she made her compliment and thus clearly still trusting him, Hamilton started on a trip down memory lane while reading the letters of his deceased sister Eliza; she had left them for him "to preserve or destroy". On the 19<sup>th</sup> of May 1855 Hamilton wrote to Adare's mother: "How often have I poured out to you in years now long past the secrets of my heart, and how kindly you suffered me to do so, and responded to, and comforted me! "Lady, who with a mother's tenderness, And fond indulgent patience, nursingly Cherished that hope in its frail infancy."<sup>134</sup> You see that I quote from memory [Graves remarks: alluding to a verbal correction made in his writing of the quotation], though I don't forget your most kindly returning me some years ago the original, such as it was, of those that were at least heartfelt lines.

<sup>133</sup> Around this time the Disneys moved to Finglas, see footnote 54 on p. 288. On the 14<sup>th</sup> of June, after the quarrel, Hamilton asked Dora Disney to send her letters via her husband, see p. 318.

<sup>134</sup> In a footnote Graves refers to a page containing a letter to Eliza and the poem from which these lines were taken, a poem Hamilton had written for Lady Dunraven in December 1831 while being in Adare, only a few weeks after having lost Ellen de Vere. On the 27<sup>th</sup> of December he had written to Eliza: "The roads here are so much flooded that Lady Dunraven, who says that when I am here I must consider her as a mother, insists on my remaining some days longer, lest books, papers, and I, should all be washed off together." Two days later he had written the poem:

#### TO THE COUNTESS OF DUNRAVEN.

Lady, who with a mother's tenderness,  
And fond indulgent patience, musingly,  
Cherish'd this Hope in its frail infancy,  
And wert not tired with all its waywardness,  
Nor once deceived by all that deep disguise  
Which from myself had power to hide it long,  
Till it burst forth, in youthful beauty strong,  
In courage panoplied for high emprise:  
Whatever the insuperable bound  
Which could its progress bar; whate'er the spell,  
Which could what seem'd invincible repel,  
And stay what seem'd immortal; thou hast found,  
(A sister-spirit of that Hope divine),  
Within my Memory a perpetual shrine.

[Graves, 1882, p. 510].

“A very unexpected and yet very natural circumstance, or train of circumstances, has brought back Ellen De Vere, and of course you, dear Lady Dunraven, with unusual freshness before my mind and heart, within the last few days, although you and she had never been forgotten.

“My dear sister Eliza, the poetess, whom I am ashamed to confess that I forget whether you ever saw, but with whom Lady Anna Maria exchanged some friendly notes, died in my arms in May, 1851, having every comfort, spiritual and temporal, which it was possible to procure for her, and with that last poetic satisfaction of the evening sun shining beautifully and gloriously, us well as comfortingly, in for the few minutes which were her last. We read of the Sun of Righteousness, and the early Christians accepted the title of Sunday from the heathens as associated with Him who, on that day, rose from the dead, and triumphed for Himself and for us.

“My sister Eliza left me the most entire control over her papers, which were many, with power to preserve or destroy. To some extent – indeed to a large one – I have used the latter power, by putting into the flames, after reading them, a great number of the sheets of a journal which, I am convinced, would have brought me in some hundreds of pounds if I could have borne to publish it, but which was written for herself alone, though in her dying hours she gave me permission to read it, and which described too freely, as I judged, though without any particle of malice, our many visitors of long ago to this Observatory.

“But among the numerous papers which thus came into my hands, it is only very recently, after the expiration of four years of mourning for my sister, that I have taken courage to open what she considered her pet box of letters, and had confided unreservedly to me. If I tell you that I found in that box a large number of letters of my own, you will make allowance for the affection which we felt towards each other, and which was more like that of twins than of a brother and sister whose ages differed by more than a year, but who “in early childhood, almost infancy, had wandered forth together fancy-fraught.”<sup>135</sup> We loved each other to the last, and I had the satisfaction of being ... useful to her. Indeed I have burned a great number of letters of hers to me, because I did not like to preserve records of the gratitude of one who deserved, and more than all, which it was in my power to do.

“But among the papers of my sister I have found many letters which had not been written by myself; and among those I must confess that I have found, and even read, though I have not yet had courage to read through all of them, several letters from Ellen De Vere, and from Mrs. Robert O’Brien. At this great distance of time it did not seem to me an unpardonable sin, nor even any want of delicacy, to do so; and I was comforted on that score by finding in one of the most beautiful, but also most secret, letters of the set the remark: “I should be glad that no person out of your family should know of this letter.” My sister, no doubt, feared to agitate me by showing me at the time that very charming letter; but surely I may accept, as an anticipatory forgiveness for reading it, the sentence which I have quoted.<sup>136</sup>

<sup>135</sup> These lines come from a sonnet Hamilton wrote for Eliza in 1831, but in the poem he had written: “vision-fraught”. The poem can be found on [Graves, 1882, p. 495].

<sup>136</sup> It is not known from Graves’ biography what Ellen de Vere, later called Mrs. Robert O’Brien, wrote in this letter. The fact that Hamilton called it a “most secret” letter means that it had to do with love and marriage, in those days an almost forbidden subject, and the fact that he called it “charming” means that it was nothing sad; it was certainly not about her being sorry that he did not propose to her, since that would doubtlessly have been upsetting for him even after so many years.

"We are told from the pulpit, and cannot, perhaps, be told too often, of the faults and corruptions of our nature. Most fully, most heartily, do I grant all that from the experience of myself. But I must say that my opinion of the good part of human nature, and especially of the nature of young ladies, has been very decidedly exalted by the perusal of my sister's correspondence, not quite completed yet. How much it struck, how much it affected me, to compare the ardent yet discriminative enthusiasm with which Ellen De Vere and Dora Wordsworth (whose grave I kissed by moonlight at Grasmere last autumn) wrote to my sister separately of their first meeting!"<sup>137</sup>

### Jealousy

In May 1855 Hamilton met Mrs. Wilde, and at some time in June he started a correspondence with her of which Graves made the remark: "The acquaintance rapidly ripened into friendship, and a correspondence ensued in which Hamilton sometimes acted as critic of a poem by Speranza, at other times confided to her the story of his life. The same reasons which have led me to refrain from presenting in print Hamilton's correspondence with the Nichol family dictate a similar course in this instance. But it would be wrong to leave unrecorded the fact that Hamilton was not only interested in the mind of this gifted countrywoman, but esteemed highly her whole nature, in which he recognised many features of native nobility."

On the 29<sup>th</sup> of June Hamilton told Mrs. Wilde about Catherine's "Scarlet Letter", and Hankins writes that on the 30<sup>th</sup> "Hamilton told Lady Wilde that he found her remarkable, interesting and even "a very lovable person." He said that he understood her because he had known another female genius, his sister, and that he admired that genius. [...] As the correspondence continued [...] he remarked jokingly that his wife was becoming jealous. In fact it was more than a joke. She was indeed jealous of Mrs. Wilde, and even more so of Dora Disney." He then mentions the quarrel she provoked.<sup>138</sup>

Hankins does not give the exact time at which Hamilton wrote that his wife became jealous other than that it was during the 'continuation' of this correspondence, thus apparently after the letter about Catherine's *Scarlet Letter* which was written on the 29<sup>th</sup> of June. But that means that Hankins gives Lady Hamilton's quarrel, which she made on or before the 14<sup>th</sup> of June, and the sentence to Mrs. Wilde about her jealousy in reversed order. This order, combined with the fact that the description is very short, lasting only one paragraph, suggests that her quarrel occurred after Hamilton noticed that she was becoming jealous, thus as a confirmation of this notion. But the realization that Hamilton made this remark after her quarrel raises doubts as to how serious he took her jealousy.

But Hamilton's supposition that at the time Eliza would have feared to agitate him makes it very plausible that Ellen de Vere wrote in that letter about her falling in love with O'Brien. It is further very unclear how Lady Dunraven would be expected to understand what this was about; either Hamilton was indeed just showing that he had been allowed to read these letters, or there were more letters in this correspondence between him and Lady Dunraven, or Graves did not give Hamilton's letter in its entirety, again judging it too personal.

<sup>137</sup> [Graves, 1889, pp. 27-28]

<sup>138</sup> [Graves, 1889, pp. 24-25], [Hankins, 1980, pp. 356-357], [Hankins, 1980, p. 450 note 46]. Graves only gives the part of this letter in which Hamilton wrote about himself as being Irish; see for that part p. 42, for the *Scarlet Letter* p. 317.



### 9.5.4 Wedding vows

The impact Eliza's letters had on him seems to have been an important trigger for Hamilton to unburden himself in the summer of 1855 about his feelings for Catherine in the correspondence with Mrs. Wilde, in the letters to the Nichol family after having met them in Glasgow, and more completely in the letters to De Vere. The correspondence with De Vere started after Hamilton had sent him extracts of letters which Ellen de Vere had written to Eliza; De Vere reacted by writing about reminiscences, a page Graves gives the page heading 'Aubrey De Vere on Old Times'. In the last given letter from that intense correspondence, which lasted from July until October, Hamilton wrote: "I found that it at times agitated me to a degree which was imprudent for health, of body and of mind, to write as I was doing before I went to Glasgow, on subjects that are still so very vividly remembered. My visit was an useful diversion of my thoughts."

The 1855 meeting of the British Association, held in Glasgow, had been late, from the 12<sup>th</sup> to the 19<sup>th</sup> of September; and indeed eight of the nine given letters of the correspondence with De Vere were written before Hamilton went to the meeting, thus between July and mid-September 1855. But although the correspondences with the Nichols were perhaps less intense than the correspondence with De Vere, even as late as November Nichol Sr. reacted to Hamilton's very open letters, leading Graves to make his weary remark about Hamilton's continued writing on "incidents of the past".<sup>139</sup>

### A difficult situation

Trying to see the events of that year from Lady Hamilton's point of view, it is again easily imaginable that after a hopeful beginning of the year Hamilton's renewed focus on the past must have been extremely difficult for her. She doubtlessly knew what was going on even if perhaps not factual; she must have felt his distraction after having read Eliza's letters, at the same time apparently feeling threatened by Hamilton's growing friendship with Mrs. Wilde, and on top of it all finding Dora Disney's letter in June; her quarrel with Hamilton can indeed very easily be understood. And then, as mentioned before, on the last day of June Hamilton wrote jokingly to Mrs. Wilde that his wife was becoming jealous. If it had not been known from Graves' extensive biography who Hamilton was, how he revered marriage and was always trying to be a good person, this could be read as a very mean remark.

Yet, thanks to Graves, Hamilton is known from very many letters, his own letters and testimonies of his friends, and that allows for another possibility. It is very clear that he married his wife for her piety and truthfulness, and she dared speak her mind to him; it can therefore be assumed that they talked after the quarrel, and that he assured her that he would never be unfaithful to her. She will have believed that, she will have known that he would never cross the boundaries of matrimony without extreme feelings of guilt and deep contrition.<sup>140</sup>

<sup>139</sup> [Graves, 1889, p. 39], p. 221, p. 309, p. 312

<sup>140</sup> He did of course reach the boundaries in 1861 when kissing Louisa, but even then it did not sound, and he subsequently did not act, as if he even remotely thought about wanting to opt out of his marriage. He told Louisa, and she accepted it, that his once having wanted to marry her had been directly related to his feelings for Catherine, see p. 321.

But even if they talked about it and basically trusted each other, while writing all his letters during the subsequent months she must have seen his distress and could do nothing; as mentioned earlier, in October he wrote to De Vere that writing as he had done “before I went to Glasgow” “at times agitated me to a degree which was imprudent for health, of body and of mind.” That must have been extremely difficult for her, believing him yet not being able to reach him or even comfort him. But he must have been consoled by her after the quarrel; although it is not known what they talked about she must have assured him that she trusted him since he would never have made a joke about her if he did not think the situation at home was in order; knowing how hard it was for him not to have her around, he would not even have been able to work if he would have felt that he was losing his wife.

Yet that meant that now the problem was hers, she had to trust him with all his remembrances, his romanticism and distress. It is hard to imagine how Victorian couples would handle such feelings, but it has never been mentioned that they had other quarrels. Perhaps she would have wanted to, but could not; in any case, in the beginning of 1856 she was ill again.

### **The second “illness of a nervous character”**

Hamilton was extremely worried about her; Graves writes: “During the first half of 1856 Lady Hamilton was seriously indisposed with illness of a nervous character, similar to that by which she was affected in 1840-41, and letters of her husband prove not only his natural anxiety on the subject, but his affectionate devotion to her of personal care and detailed consideration. [...] [Hamilton] mentions incidentally, “I have been walking nearly the whole of this morning with Lady Hamilton in the garden”: and he remains in doubt till the very last day, whether he shall allow himself the anticipated pleasure of attending the Meeting of the British Association and being a guest of his old friend John Graves at Cheltenham, telling his expectant host (August 8) that “Lady Hamilton has been really very ill for a good while past. She has often parted with me before, but for the last six months or nearly so, I have been a sort of nurse to her, and it is a great effort to her to part with me, at present, even for a few days.” This illness of Lady Hamilton, and the confinement to which it doomed himself, had undoubtedly an injurious effect upon Hamilton’s own health and spirits. There are indications of this in his journals and letters, prompting in the mind of the reader uneasiness and expectation of some break-down.”<sup>141</sup> Yet even having read most of Hamilton’s letters, also the ones he did not want to give, still not for one moment Graves seems to contemplate whether her illness may have had something to do with Hamilton himself and what he had done, or that his imminent break-down may have been triggered by what they talked about when walking together in the garden.

In their normal daily life apparently always happily trusting that his wife was in order if she did not complain as was argued before, her becoming ill was perhaps the only signal which made Hamilton realize that something was really wrong. That does not seem to have been too unusual in their times, in which women were expected to just be very good wives, mothers and housekeepers despite whether their talents were suitable for that, let alone what they wished for; and even with Hamilton’s rather free thoughts about women, he was a man of his time. And it matches with his overall

<sup>141</sup> [Graves, 1889, p. 51]

optimistic character; in the many letters he wrote about his distress he always also wrote about other important or less important matters; for instance, in one of the letters of the intense correspondence with De Vere in 1855 he criticized several poems De Vere published that year which means that he had read the poems; he also wrote about how happy he was that De Vere did not show bitterness in them and how he could believe that they costed De Vere “a struggle”. Hamilton was never just, or completely, in distress, and he could always work, except during the six-week correspondence with Catherine and large parts of the year his wife was in England.

Moreover, that same summer, shortly before starting for Glasgow, in one of the letters to De Vere Hamilton contemplated his feelings for both Catherine, Ellen and Helen almost peacefully and without any judgement about which feeling was the most or the least important, when he wrote that he had been “as happy in my own marriage as I expected, and more than I deserved to be. My *three loves* have been of *kinds* entirely different, and were felt all along to be so. I do not think that I ever confounded the three feelings [...]. They sometimes suggest themselves to my mind, as having been *characteristically* those of a *lover*, a *brother*, and a *husband*: selecting, you know, what has been eminent in each of them.” It does not sound at all as if he was aware of having problems at home although, as can be imagined, from her perspective difficult things were going on.<sup>142</sup>

### The impact

As mentioned in the chapter about Catherine, in October 1855 De Vere had written to Hamilton about the “beautiful Vision” to which Hamilton had reacted, on the 1<sup>st</sup> of January 1856, by writing that it “almost tempted me into writing again on the potentialities of the past.” Although the bachelor De Vere wanted to philosophically continue this correspondence, Hamilton apparently knew that he had to stop now. It is unknown whether Lady Hamilton was already ill then or not but Hamilton may have felt it coming, he had seen her in such a crisis before. And he perhaps started to see that if he would further cross her boundaries he would lose her; if not to a divorce, than to death.

As mentioned, Graves writes how Hamilton “encourages her pastor, Dr. Sadleir of Castleknock, to enter into religious conversation with her, urging with truth and wisdom, “I have known even the body benefited by a courageous reference to things of a higher life;”” just as he had tried in 1832 he apparently again tried to help her by showing her how he had learned to cope with his periods of melancholy and gloom. He was very worried about her and while walking in the garden they will have talked, and at some moment she must finally have been able to tell him how she feared to lose him. Of course, Graves would not write about it, but it is certainly possible that Hamilton’s imminent break-down, which Graves ascribed to worries about his wife’s illness, may have had to do with what they talked about, and with the guilt Hamilton may have started to feel.

Having talked about everything and finally trusting each other again would in any case explain why he first doubted very much whether he would go to England to attend the meeting of the British Association, yet when he was there and fell ill he could so easily “feast upon the contents of the rich scientific library of Mr. Graves;”

<sup>142</sup> See p. 151, [Graves, 1889, p. 35], p. 145. The italics are Hamilton’s.

he did not have to worry about his wife anymore, things at home were fine again. And indeed, after she recovered, everything seems different. Their life seems to have quieted down, and Hamilton did not again write letters about Catherine except to Louisa Reid and Mrs. Wilde during two months in 1861. Hankins remarks that after 1855 “the references to Catherine became less frequent” and ascribes that to Hamilton’s unburdening in the many letters which apparently had a salutary effect. That will certainly have been true, but it will have been the combination of this unburdening with Lady Hamilton’s subsequent illness, his anxiety about her and the realization that he could lose her, something he would hardly be able to handle, which finally opened his eyes.<sup>143</sup>

## 9.6 An attached couple

Looking at what happened during the periods before each of Lady Hamilton’s two long lasting ‘nervous illnesses’ it was rather easy to find circumstances which were, potentially, so distressing that she could have become depressed, certainly when taking the era in which they lived into account. And both times, doubtlessly unintended, after her illness her situation changed for the better.

The first period of illness started at the time ‘society’ slowly crept into their life although she had married Hamilton on the condition that it would not, and apparently he finally understood; there are no more indications of him asking her to accompany him to such visits. The second period of illness came when it took Hamilton a very long time to get over Catherine’s death, or rather, over his having learned that she had been married against her will, and probably always had loved him. It can be imagined that at first Lady Hamilton really pitied him, or even suffered with him since sufferings as those over Catherine are easy to sympathize with, and he had never hidden those feelings for her. But when she became jealous yet he still kept on writing about Catherine, she finally fell ill again; he then took care of her for months, and however they did that, they were able to restore their trust in each other.

From her illnesses it can thus also be inferred that, although she seems to have been a rather direct person and not afraid to speak her mind, it was probably not possible during these Victorian times to say anything directly about such difficult subjects. Perhaps that nowadays she would have sought help from a relation therapist, but in their times talking about a marriage outside the family seems to have been almost forbidden. During the second illness both her nearby sisters had died already, there was just her pastor, who seems to have done what he could. But, also luckily for her, she had known whom she said yes to; Hamilton really changed his behaviour both times, and in the end she was right to have trusted him. He loved her as his wife, and knew that he was tied to her by the “mystic ring of wedded love.”

Indeed, during the first period he was reminded of his promise about their retired life, the second time of his wedding vows. And he did not see that as a burden, on the contrary, for him marriage was “dear and obligatory”. He knew what he had promised and stood by it, he never said anything bad about his wife, and she, in the end, will have forgiven him since they remained to be attached to each other for the rest of their life.

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<sup>143</sup> See p. 313, p. 153, p. 227, p. 318.

## Chapter 10

# An occasional mastery

*To admire is, to me, questionless, the highest pleasure in life.*

— Sir William Rowan Hamilton

*In this chapter Graves' idea that Hamilton suffered from a "relentless craving" for alcohol will be challenged. It will be shown that Graves did not claim that Hamilton was an alcoholic, and a case will be made for the proposition that Hamilton never drank too much, in the sense of losing control of his faculties and behaviour.*

The year 1839 was a year full of sickness and death; Hamilton wrote in his journal that they gave up "all visits [...] except to those who were sick." Yet he continued: "On the other hand, the year has been with me a very studious and thoughtful one." And the year was not "unhappy", as he wrote to John Herschel, "others for whom we were very anxious appear [...] to be regaining health. [...] The Requiem is delightful, and your sending me a copy was at once felt as a compliment, and enjoyed as a treat. It would sound too solemn if I were to mention how Lady Hamilton and I were engaged at the same moment." Indeed, they were talking much about religion as Hamilton also wrote in his journal, and "family prayers have been more regular than they used to be here, and my children have gladly attended them."<sup>1</sup>

Towards the end of 1839 Lady Hamilton was pregnant and in "delicate health", and in the spring of 1840 lodgings were taken for her in Dublin. In August 1840 their daughter Helen Eliza was born at the Observatory, and on the 22<sup>nd</sup> of May 1841 Hamilton wrote to Boyton: "since the christening of our little daughter in September [Lady Hamilton] has not been here at all; and for the last three months has been residing with a married sister in England, which country she, not unnaturally for a timid lady, prefers to Ireland." Just as during the periods in 1834 and 1835 when she was at Bayly Farm while he was at the Observatory Hamilton could hardly work, but this time he was also very unhappy and people started to gossip about them: "Lord Adare, who in the beginning of December [1841] was in London and who had been

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The quote can be found in [Graves, 1885, pp. 260-261].

<sup>1</sup> See p. 198, [Graves, 1885, p. 315], p. 199.

longer than usual without direct tidings of his friend, was at this time rendered uneasy by hearing that Hamilton was unhappy, and that unfavourable comments were being made upon the continued absence from home of Lady Hamilton.”<sup>2</sup>

## 10.1 The obscuration

As mentioned before, Graves pinpoints the start of Hamilton’s “obscurity” to Lady Hamilton’s return from England in January 1842. In the earlier discussed passage he writes: “[...] the old want of governance was again felt, and grew habitual. The consequence was deeply and permanently injurious to Hamilton. He had now no regular times for his meals; frequently had no regular meals at all [...]; and the fire and hot coffee, which in his earlier experience used to await him at night, [...] were succeeded by a provision of porter, which dissipated chill by a stimulus less effective, and fraught with inevitable danger. The danger was long unfelt and unrecognised; but the insidious habit gradually gained firmer possession, and produced that relentless craving which in a few years from this time exercised over him an occasional mastery; by which he must himself have felt humiliated, and which his friends could not but notice with a deep sadness.”<sup>3</sup>

### A quiet time and tiredness

Having Lady Hamilton back home again, Hamilton happily returned to his studies. Things at home were good; in September 1842 Hamilton wrote to De Vere: “Lady Hamilton is at home, and well, and will, like me, be very glad to see you here on your return from London. ... We have a room and bed at your service. You must judge for yourself whether the little fellow, who said, three years ago, with an air of deep self-reproach: “Thinking of Latin, and thinking of trouble, and thinking of God, I forgot Aubrey De Vere,” has relapsed into any such forgetfulness.” According to Graves the visit was indeed paid.<sup>4</sup>

The year 1843 started quietly, although Hamilton became ever more strict in his religious observances and observations about himself. Graves writes: “It is to be mentioned that Hamilton had for some time practised regular fasting, conceiving it to be part of his duty as an obedient churchman, and being encouraged to consider it also conducive to health.” And on the 7<sup>th</sup> of January 1843 Hamilton wrote to De Vere about his poetry: “Of the faults or rather deficiencies of merit, for I believe I have no splendid faults to boast of, which occur in my compositions, I am perhaps almost as well aware as any critic can be; but, as the sincere expressions of real and often deep feelings, they may have some interest to other readers, and must have much to me. ...

“Your view that I may hope to effect whatever work has been assigned me, in the department of poetry, by continuing to write, when I write verses at all, chiefly on subjects personal to myself, and connected with the growth of my own proper being, seems to me not unlikely to be a just one, since my turn of mind is obviously much more subjective than objective; but my fear of appearing, and still more of being, vain discourages me, and I cannot look without affright, and something like shame,

<sup>2</sup> See p. 205, [Graves, 1885, p. 332], p. 179, p. 207, [Graves, 1885, p. 354].

<sup>3</sup> See p. 8, [Graves, 1889, pp. 334-335]. See for the earlier partial discussion of this passage p. 328.

<sup>4</sup> [Graves, 1885, p. 393]. The “little fellow” will have been one of Hamilton’s sons.

on the large proportion of my poetry which is entirely egotistical, or which might be set down as such by no uncandid judge. On the whole, I think it likely that in future I shall write few strictly personal, but many meditative, sonnets – at least, there are many thoughts which, being neither clergyman nor author, I cannot otherwise give form and utterance to, and which yet seem to me interesting and worthy of being uttered, and not entirely unsusceptible of expression in the sonnet form.”

According to Graves, in March 1843 Hamilton “received a blow from a quarter from which it was not reasonably to have been expected;” the Board of Trinity College asked him to write a report about the work at the Observatory. The College seemed dissatisfied although they had allowed Hamilton “to give his principal attention to the study of pure mathematics. [...] The whole proceeding seemed to imply [...] an ignoring or at least very inadequate appreciation of the contributions to mathematical science which had been made by Hamilton since that condition was accepted. It would appear by private letters that Hamilton was able to show that he was chargeable with no neglect, [...] but the movement led him to contemplate the possibility of his having to give up pure mathematics.” Knowing how important Hamilton’s mathematical studies were for him, this must have been very stressful, and it still bothered him in July.<sup>5</sup>

In June 1843 he was tired, and Lady Hamilton had been ill again. Hamilton seems to have missed his sisters and still mourned Cousin Arthur as can be read in a letter to Eliza, written from the Royal Irish Academy: “Before I go back to the Observatory, after a longer lecture than usual, and one which has rather fatigued me, I write a line to thank you for your last letter. Since Cousin Arthur’s death the world has seemed to me to be under a dulness, not to say gloom, from which I do not expect to see it recover.”<sup>6</sup> Helen and I called on Grace on Tuesday, and asked her to spend the vacation (about six weeks) with us – she has given no answer as yet. You may judge that Helen is much better. [...] It is quite an effort to write these few lines.”

But that summer he attended the annual meeting of the British Association in Cork, then he visited De Vere’s parents at Curragh Chase, on his way home to Dublin he visited Parsonstown and after having returned home he attended a meeting at Stackallan from where he wrote to De Vere, on the 13<sup>th</sup> of September, that it was a “very interesting place.”<sup>7</sup> Through these visits he renewed his energy so much that he finally took up again his work on triplets, which resulted in the finding of the quaternions in October.

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<sup>5</sup> [Graves, 1885, pp. 401-402], [Graves, 1885, pp. 410-413], p. 446. See for a letter to Adare in which it can be seen that it still bothered him in July p. 447. An overview of this request for a report in 1843, and a second one in 1853, can be read in [Wayman, 1987, p. 65 ff.]. Wayman remarks about the 1853 report that although Hamilton was “roasted” then, the “Commissioners were fully aware of the importance of Hamilton’s mathematical and philosophical work.” And Hamilton seems to have convinced them: in 1858 he wrote to Nichol Jr.: “At all events, I am satisfied that the generous (for such to my feelings it has been) non-interference of my academical and other superiors, has both allowed and encouraged me to do much more for the public than I was likely otherwise to have done. I have, perhaps, purchased Freedom by sacrifices; but, at least, I possess it.” [Graves, 1889, p. 110].

<sup>6</sup> Cousin Arthur had died in December 1840. This seems to be again an example of Hamilton’s way, especially when he was tired, to take his feelings of the moment so serious that he could hardly imagine that he would ever feel happy again.

<sup>7</sup> [Graves, 1885, p. 414], [Graves, 1889, p. 416]. According to Graves the meeting in Cork was held “towards the end of July” but it was at the end of August. The college at Stackallan, a still existing boarding school, was founded, amongst others, by Adare.



### Some envy and jealousy in Dublin

In 1842 Graves had published the 'biographical sketch' about Hamilton in the *Dublin University Magazine*, and in the article he had also discussed Hamilton's, in Graves' eyes, low income.<sup>8</sup> Hamilton was unhappy with these passages, but in November 1843 he received a letter that he was granted, by Her Majesty, a pension of £200 per annum for life.<sup>9</sup> He was devoted to the English monarchy<sup>10</sup> and therefore happy with Graves' "too favourable view of me, set forth with such natural and affectionate eloquence as that with which you set it forth," which "may have contributed to call upon me the notice and bounty of my Sovereign," as he wrote to Graves. But he also let Graves know that he was not pleased with his action: "You could not doubt that I would cheerfully forgive you for being the unintentional occasion of provoking some envy and jealousy in Dublin, by your too partial description of your old friend in a number of the *University Magazine*. I must confess, and I believe the confession does not take you by surprise, that it took all my friendship to task to forgive you for introducing at all the subject of my income, in that account of my exertions." Obviously there was gossip; there had been "unfavourable comments" about his wife's absences, and now there was "some envy and jealousy" about him.

It was of course very honest of Graves that he published Hamilton's letter although the question is whether, in case Hamilton was really angry, he was able to realize that, or that he just assumed that it again contributed to Hamilton's humble

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<sup>8</sup> Graves had written: "And now, one word upon a subject which we could have wished to avoid, and for touching upon which we are afraid we shall incur our friend's displeasure, but upon which we have too strong a feeling to allow us to be silent. We allude to what we consider the very inadequate income upon which Sir William Hamilton has to live: inadequate as it appears to us, both to his individual claims and the station which he fills. Sir William Hamilton is the possessor of no patrimonial fortune, neither has he been enriched by marriage: he has been restrained from entering into the ministry of a church to which he is conscientiously attached, and to the most lucrative dignities of which he might naturally have looked forward, by a fear, which does him the highest honour, if not of any incompatibility between the functions of a clergyman and those which he now discharges, yet at least of affording ground of offence on this score to weaker brethren, or to enemies of the church: he has been precluded, we believe indeed by compact with the university, but at all events, we will say, by a due consideration of his present standing, and by justice to his own intellect and to the rightful claims upon it of the scientific world, from aiding any longer his pecuniary resources by the task of tuition: and upon a net income of less than six hundred a year, he has not only to support and provide for his family, but to maintain, for the credit of himself, his university, and his country, a hospitality upon which the demands are rendered the greater by his eminent merits and extended reputation. We know too well the dignity and unworldliness of our friend's character, to think that he will remonstrate on this subject, concerning which, intimate as we have been, we have never heard from him a word of complaint; we also know that in this hurrying world such a character and such conduct are too apt to be neglected or admired, rather than advocated and rewarded; and, therefore, feeling that the occasion is exactly one upon which a friend's voice is alone likely to break a silence which ought not to last, we have taken the present opportunity of speaking our word of appeal; and we trust that, humble as is the quarter from which it proceeds, it will not be addressed in vain to the justice and the liberality of authorities, who have at heart, we know, the reputation of our national institutions, and upon whom will be reflected a lasting credit from any act which shall brighten the life of a man now certain of holding a distinguished place in the scientific annals of his country." See p. 210, [Graves, 1842, p. 109].

<sup>9</sup> According to the website *MeasuringWorth* in 2014 the relative economic status value of a £200 income or wealth in 1843 is £316,600, the economic power value of that income or wealth is £742,400. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 09 July 2015].

<sup>10</sup> In 1849 Hamilton wrote to Madame Ranke, Graves' sister: "I have always been a loyalist, and was enrolled in the spring of 1848 among those who were ready to take up arms for her in Ireland." [Graves, 1885, p. 647].

image. Hamilton did end his letter very friendly indeed; “At this moment it presses more upon my heart that the Giver of all good things has been graciously pleased to restore to his parents, at least from obvious danger, my second son Archy, whom your cousin Robert [James Graves (1796-1853)] has lately been attending. I do not forget your having advised me once to consult him for myself, and hope that, at all events in the prevention way, his friendly counsels may be useful to the father as well as to the child.

“With very sincere regards to your good lady, whom I think there is a very fair prospect of my being able to visit next summer, I remain, &c.

“P.S. – Though I hope to write to Wordsworth soon, I do not grudge you the pleasure of conveying to him the good news.”<sup>11</sup>

### Working too hard

In the meantime, Hamilton was very much impressed by the properties of the just found quaternions, as were others. His friend John Graves wrote: “There is still something in the system which gravels me. I have not yet any clear views as to the extent to which we are at liberty arbitrarily to create imaginaries, and to endow them with supernatural properties.” But already after two months, in December 1843, he found an extension to the quaternions, and he called them octaves.

The year 1844 was a very difficult year in which Hamilton was afraid, during a few months, that John Graves’ octaves could be a better system, but in the end he was able to show that that was not the case. Also, more mathematicians were discovering systems which seemed to meet the requirements for an extension of the complex numbers, and although Hamilton even helped them at times, every time he was able to show that his quaternions were the better system. But then MacCullagh claimed “a suggestion of Quaternions” and used “some expression by which Hamilton was offended.” Charles Graves mediated between them, and as a proof of originality Hamilton published the letter he had written the day after the finding of the quaternions to John Graves, “describing the process of thought by which he had arrived at it.”

Fortunately, this letter had been copied since Hamilton had taken care of that as can be read in one of his notebooks: “I wrote this day, October 17th, to John T. Graves, Esq., on the subject of these Quaternions, and sent it under cover to the Rev. Robert Graves. I authorised John Graves to show the letter to De Morgan, if he thought fit. Callaghan took the letter to put it in the English post. I asked John Graves for a copy. I made the geometrical construction of the multiplication of 2 quaternions involve: 1st, the law of the moduli; 2nd, the theorem of the spherical triangle; 3rd, the rule of rotation.”<sup>12</sup>

These events took their toll but Hamilton was unstoppable; although in July 1844 he did take a short vacation with William Edwin, after returning to the Observatory he resumed “zealously his Quaternion researches.” He then missed the annual meeting of the British Association in the autumn since he was ill, but he kept writing in

<sup>11</sup> [Graves, 1885, pp. 449-450]

<sup>12</sup> [Graves, 1885, p. 443], [Graves, 1885, p. 454 ff.], [Graves, 1885, p. 463]. For the letter, see [Hamilton, 1844]. It is not known who Callaghan was; only once, in August 1832, Hamilton mentioned a Callaghan. He had a workshop near the canal, and Cousin Arthur had once taken shelter there while riding Hamilton’s horse Planet. [Graves, 1882, p. 590]. Since he thus lived nearby, Hamilton may have asked him to post his letter.

his bed. John Graves, who stayed, in October 1844, for some days at the Observatory, was worried; he wrote in a letter to Graves that he thought Hamilton would be overstrained: "While I was amazed at the depth and clearness of his intellect on general subjects, I could not help thinking that he was overstraining his mind by incessant exertion in mathematics. The way in which he went on orally with abstruse calculations seemed to me to indicate the morbid activity of brain resulting from overwork. Then I had to tax myself with encouraging this; for though I lost much from inability to follow him, I felt great interest in the subject of quaternions, and proposed problems which he was kind enough to solve for me. The evil of such exertion was manifest to me in the painful exertion expression of his face, such as I have seen in Herschel in former times (happily not lately), and in a certain nervous irritability of temperament. It is exceedingly unfortunate that he should lately have been stimulated by other workers in the same field, and worse still, annoyed by unfounded claims to the credit of suggesting what is peculiarly his own. I know not what business anyone has to claim any merit, if a thought of his happens to suggest different happy thoughts in the mind of another. To the most inventive genius the most common things are the most suggestive. It must be especially annoying to him to have such claims made without sufficient grounds, for there is no one more ready than Hamilton to give everyone his due. The best thing that a friend of Hamilton could do would be to get him to make the tour of Europe when he has completed his Paper on Quaternions – not before." Graves comments to this letter of his brother: "We learn from this that the great brain which seemed to work with the ease and power of a steam engine, had at last begun to feel the incessant strain to which it had been put by abstruse thought." Yet here the emphasis seems to slightly differ from that in John Graves' letter.<sup>13</sup>

And in November or December Hamilton sprained his ankle. It must have been rather bad since on the 23<sup>rd</sup> February 1845 Hamilton wrote to Graves: "This was the second Sunday of my being able to walk to my parish church since I sprained my ankle, almost three months ago." But he kept on working unremittingly, and "his friends began to be seriously uneasy about his health. A mathematical letter from De Morgan, dated December 30, 1844, thus concludes: – "I hope you are well and taking care of yourself. Nobody gives you a good character in the second particular. The Astronomer Royal in [England] always lays down his work the moment he feels wrong, and plays till he feels right again. You have too much of our stock of science invested in your head to be allowed to commit waste. You are only tenant for life, and posterity has the reversion; and I don't see why you should not be compelled to keep yourself in repair.""

But Hamilton was hard to influence, even by De Morgan, and in February 1845 Hamilton wrote to Graves as quoted earlier: "I am just about to rout [William Edwin] off to bed, and to practise, at least for this night, what I preach, although I too often find the dawn surprise me when I look up to snuff my candles, after some too fascinating study." Indeed, although he had written in 1840 that "it seems wrong to injure my health without a definite call to do so," he seems to have seen his quaternions as such a definite call.<sup>14</sup>

<sup>13</sup> [Graves, 1885, p. 440], [Graves, 1885, p. 459], [Graves, 1885, p. 467], [Graves, 1885, p. 469], [Graves, 1885, pp. 462-463]

<sup>14</sup> [Graves, 1885, p. 480], [Graves, 1885, p. 477], p. 200. This letter, in which Hamilton mentioned to work "too often" through the night, may have been an important reason for Graves to disapprove of Hamilton's work on the quaternions. For his disapproval see p. 486. When Hamilton was young

## 10.2 Church matters

In 1839 Hamilton had become more and more strict in his private church matters, and he had started to ‘show sympathy’ for the so-called ‘Tractarians’, leading Eliza to call him a “flaming Puseyite” after Edward Pusey (1800-1882), one of the leaders of the Oxford Movement.<sup>15</sup>

### The Oxford Movement

The traditional Anglicanists within the Church of Ireland held “learned and orthodox” sermons and were called ‘high-church’, while the Evangelicals, who emphasized personal devotion and service as well as ministry and mission and avoided elaborate liturgy, were called ‘low-church’. Before 1833 Hamilton had been drawn principally to the Evangelicals, but since they lacked a systematic theology he was also attracted to movements within the Church of Ireland emphasizing doctrine.<sup>16</sup>

In 1833 a group of theologians strived for a revival of Catholic observance and doctrine within the Church of Ireland. Their movement was called ‘The Oxford Movement’, and since their most important publications were called ‘Tracts’ they were called the ‘Tractarians’. Graves writes that in the summer of 1839 Hamilton “‘read and thought a great deal on several important subjects’: from his Journal and from [...] letters [...] it will be seen that religion in many of its aspects was one of these subjects. The Oxford movement had begun; already Newman’s influence was from that centre spreading in wider circles.<sup>17</sup> Hamilton’s mind was too large and too open not to give earnest study to the views and arguments which were urged at this era with remarkable zeal and eloquence. Certainly from this date his convictions and feelings with regard to the organisation and the ordinances of the Church, and especially with regard to the efficacy of the Sacraments, became deeper, and his devoutness more habitual: but as notably, while rejecting on both philosophical and religious grounds the tenets of Calvinism,<sup>18</sup> he adhered firmly to

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he preferred Winter over the other seasons, [Graves, 1882, p. 65], and the combination with working through the night makes him seem to be an evening person. But when travelling he easily rose at seven o’clock, [Graves, 1882, p. 391], he took morning walks, [Graves, 1882, p. 395], and he regularly started to work in the middle of the night, [Graves, 1889, p. 163].

<sup>15</sup> See p. 199, [Hankins, 1980, p. 237]. Pusey once visited Hamilton; in August 1841, while Lady Hamilton was in England and Hamilton was often depressed, he enthusiastically wrote to Graves “On Monday who should visit my breakfast-table and spend the day with me, but Dr. Pusey? ... I was delighted, and so I dare to say would you have been, for all your anti-Puseyism. It seemed as if we ought to have been old friends. He appeared to my sister [Graves remarks: Sydney] and me to be not only very amiable, but perfectly unaffected; and I must own that in person and manners, though not in opinions, he was excessively unlike to what I had imagined him to be. He brought a little daughter with him and seemed to be fond of children. I took him on my car to the railway station in Westland-row after an early dinner at the Observatory; and took tea at his temporary residence beyond Kingstown. He walked back with me to the railway.” [Graves, 1885, pp. 344-345].

<sup>16</sup> [Hankins, 1980, p. 237], [Hankins, 1980, pp. 230-232]. Hankins describes these religious and theological turmoils in his biography in part 5, Politics and Religion, chapter 16, In and Out of the Oxford Movement.

<sup>17</sup> John Henry Newman (1801-1890) was another one of the main leaders of the Oxford Movement.

<sup>18</sup> In November 1855 Hamilton wrote to De Vere that he also read “atheistical books, infidel books, Socinian books, Protestant evangelical books, books by the Archbishop of Dublin, Protestant High-church books, Romanist books.” [Graves, 1889, p. 40]. He was very explicit about Calvinism; in February 1859 he wrote to M. O’Sullivan: “To me it appears to be of vital importance, that a

most of the principles not unmeritedly called Evangelical (those, namely, identified with salvation through faith, with free forgiveness, and with the sole mediation of Christ), and upheld an unvarying protest against what he considered the deviations of Romanism from primitive Christianity." Hamilton's convictions thus were partly high-church and partly low-church, but, according to Hankins, the Oxford Movement "drove a wedge between high and low churchmen, forcing members of the Anglican church to take a stand on one side or the other."<sup>19</sup>

### The high-church days

After 1839 the Oxford Movement had increasingly tended towards Catholicism, and as a result many people around Hamilton converted to the Roman Catholic Church. The conversion, in June 1845, of Reverend George Montgomery, who had been Hamilton's local confidant in religious matters, was very difficult for him.<sup>20</sup> Graves writes: "I find among Hamilton's papers the following sketch of a letter, in which he replied to Mr. Montgomery's intimation of the serious step he was about to take. It shows how deeply the religious opinions of Hamilton affected his life, exerting thus their power upon the continuance of a valued friendship. This letter met with a grateful acknowledgment from Mr. Montgomery." The letter was dated the 26<sup>th</sup> of March 1845, and Hamilton wrote to Montgomery: "I had some intimation before, but hoped that it might not be quite accurate, of what you rightly judged would grieve me. It has, indeed, caused me the most exquisite pain, though it has not diminished my respect or affection for yourself. Our intimacy, as you foresee, is likely, or rather certain, to be impaired; it has been one of the greatest pleasures of my life, and I believe that you have been good enough to regard it as not disagreeable to you; but neither of us could desire, under the circumstances you mention, that it should continue such as it has been. Indeed, a decided diversity of religious sentiments can scarcely co-exist with real and cordial intimacy; and, while I acknowledge and feel my great inferiority to you in all theological learning, and am sure that you might entirely vanquish me in argument, I must own that we have been of late receding from each other – a Romeward tendency in some, producing always a Protestant reaction in others."

After having learned about Montgomery's conversion Hamilton seems to have become even more strict in his religious observances, and Hamilton's friends noted his

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protest against Calvinism should be raised by people like you – if there be many such. And this I say, having a very dear sister living, whom I very much respect as well as love, and who is a devoted Calvinist [Sydney and their youngest sister Archianna were still alive then]; being also – notwithstanding, as I might almost be tempted to say – but really I ought not to say it – an extremely pious and practical Christian. [...] If the alternative were proposed to me, Whether I would be a Calvinist or an Infidel? I dare not finish the sentence. But that unwritten conclusion has been, is, and will be thought, spoken, written, and acted out, by other men. I have studied, to some extent, the infidelity of Burns, of Byron, and of Shelley; and am satisfied that it was not Christianity, but Calvinism, which revolted them. May God have mercy on their souls! and on those who misrepresented Christianity. [...] But still I shall be happy to be informed that you proceed to denounce [...] a System of Theology, which, if it had been imposed by external authority upon me, would have gone near to making me an infidel." [Graves, 1889, p. 112].

<sup>19</sup> [Graves, 1885, pp. 305-306], [Hankins, 1980, p. 232]

<sup>20</sup> [Hankins, 1980, p. 237], [Graves, 1885, p. 481]. *Morning Chronicle* (Sydney, NSW : 1843-1846), Wednesday 8 July 1846: Conversions to the Catholic Church (From the Dublin Evening Post.). [...] Persons of note who have lately embraced the Catholic faith. Ministers of the Established Church. [...] AD 1845. [...] George Montgomery, B.A., curate of Castleknock, county of Dublin. Received at Oscott, 27th June. [trove.nla.gov.au/ndp/del/article/31748390](http://trove.nla.gov.au/ndp/del/article/31748390) [Accessed 23 May 2015].

growing excitability over religious matters; Hankins writes that “Robert and John Graves were particularly worried about him.” Around that time Hamilton also wrote very religious sonnets; on the 27<sup>th</sup> of June 1845, at the meeting of the British Association in Cambridge, he wrote a sonnet full of religious feeling for his godson William Wordsworth, according to Graves having received from him through Mrs. Wordsworth “not long before” a “boyish letter of remembrance.” And two days later, after the meeting had been concluded, he composed one in, and about, the Cathedral of Ely near Cambridge, where he had worshipped with Herschel amongst others.

But even during those high-church days enjoyable things could happen right next to the strict religious ones. Back at the Observatory, in August Hamilton wrote, regarding the day after the worshipping in the Ely Cathedral, a letter to De Morgan in which it can be seen that Hamilton still was perfectly able to mock himself: “Next morning [the 30<sup>th</sup> of June], as my bedroom adjoined Herschel’s, and thin partitions did my madness from his great wit divide, I easily heard what Burns might have called a “crooning” and was not much surprised when, before we sat down to breakfast at the Deanery, Lady Herschel handed me, in her husband’s name and her own, a sonnet of his to me, which, unless the spirit of egotism shall seize me with some unexpected strength, I have no notion of letting you see.” Yet Graves does give Herschel’s sonnet:

ON A SCENE IN ELY CATHEDRAL.

The organ’s swell was hushed, but soft and low  
 An echo, more than music, rang; when he,  
 The doubly-gifted, poured forth whisperingly,  
 High-wrought and rich, his heart’s exuberant flow  
 Beneath that vast and vaulted canopy.  
 Plunging anon into the fathomless sea  
 Of thought, he dived where rarer treasures grow,  
 Gems of an unsunned warmth and deeper glow.  
 O born for either sphere! whose soul can thrill  
 With all that Poësy has soft or bright,  
 Or wield the sceptre of the sage at will  
 (That mighty mace which bursts its way to light),  
 Soar as thou wilt! – or plunge – thy ardent mind  
 Darts on – but cannot leave our love behind.

In July Hamilton wrote to Eliza: “Herschel’s sonnet did relate to me, namely, to my repeating to a small party, of which he was one, in the cathedral of Ely, under the great Octagon Lantern, some time after Divine Service, on a Sunday, a sonnet of my own, which I had just composed, in the course of pacing that majestic building (in which I sometimes got myself shut up, and in which I attended Divine Service nine times), while he and his party were inspecting some parts of the architecture.”<sup>21</sup>

Having spent a week at the deanery of Ely, Hamilton was invited to come to Cambridge; in 1861 he described, in a letter to Mrs. Wilde, how “in the summer of 1845, on my homeward way from a week spent at the Deanery of Ely, in company

<sup>21</sup> [Hankins, 1980, p. 238], [Graves, 1885, pp. 491-494]. According to Graves, with “That mighty mace” Herschel alluded to “The symbolic analysis.”



with Sir John and Lady Herschel, I was invited by the authorities of Trinity College, Cambridge, to occupy, as I did, for about a week, the rooms which are traditionally pointed out as those in which Sir Isaac Newton composed the *Principia*. I used to attend Chapel in the morning, and then to walk in Newton's garden, and afterwards to breakfast as I might, perhaps in some public hall, if such were open then."<sup>22</sup>

### The end of the high-church days

During some unknown month in 1845 Catherine visited the Observatory, but Hamilton, who only mentioned the visit in letters to her brothers, left, according to Hankins, "little record" of the visit;<sup>23</sup> it is therefore unknown how it effected Hamilton. It is also unknown when exactly Hamilton's religious 'excitement' started to calm down again, that must in any case have been after the meeting of the British Association. Yet after Hamilton's return from Cambridge Graves only gives letters about Hamilton's intentions to step down as the president of the Royal Irish Academy, and mentions a "very long" mathematical letter, written in October to John Graves.

In 1846 John Graves married and, according to Hankins, in a letter to Hamilton written on the 10<sup>th</sup> of February he was "cautious in telling Hamilton that his wife was a Puseyite. But Hamilton had cooled off by that time," and in a letter written on the 3<sup>rd</sup> of March 1846 he told John Graves "not to worry, that he would probably get along perfectly well with Graves's new wife, and that his excitement the previous year had been caused by Montgomery's conversion, which, as he said, "alarmed me as to the tendency of a movement, in which I still see much to sympathise with and profit by, but also much to fear and guard against.""

In 1848 Hamilton wrote in one of his letters to Catherine: "You may possibly have heard that some people were pleased to call me a Puseyite, some years ago. However, I never pleaded guilty to the charge, though I had certainly leanings to high-churchism. But I have never allowed my views and feelings of religion to harden into any system; nor have I ever joined any party in the Church."<sup>24</sup> In the 1850s both De Vere and Adare did convert to Catholicism, while Hamilton was growing further away from it. Hankins writes: "The only remaining vestige of Hamilton's high-church days was a portrait of the Virgin that hung over the mantelpiece in his drawing room. [...] He remarked on several occasions that visiting clergy took no notice of the picture." And in 1858 Hamilton referred to himself as an Evangelical Anglican.<sup>25</sup>

It can thus be concluded that the year 1839, when Hamilton mentioned the better studied Bible and the religious conversations with his wife, can be taken as the beginning of Hamilton's high-church days. The most excitable period started in March 1845 with Montgomery's conversion, and the high-church days ended again before March 1846, when Hamilton answered John Graves' letter. The severeness can be seen through a story about Smoke: Sydney had written to Graves that Hamilton "was always fond of cats, and might often be seen writing some mathematical paper

<sup>22</sup> [Graves, 1885, pp. 494-495]. Graves writes in a footnote: "The first page of the Manuscript Book C., 1845, begins thus: – "Newton's rooms, Cambridge, July 2nd, 1845, Wednesday morning. Problem of  $n$  Bodies, attracting according to Newton's Law.""

<sup>23</sup> [Hankins, 1980, p. 348], p. 269. Hamilton wrote to Catherine's brothers about her visit on the 6<sup>th</sup> and the 8<sup>th</sup> of November 1853, thus around or probably just after her death.

<sup>24</sup> [Hankins, 1980, p. 238], [Graves, 1885, p. 612]

<sup>25</sup> See p. 308, [Hankins, 1980, p. 244], [Hankins, 1980, p. 231].



with a kitten or favourite cat on his shoulder playfully trying to catch the pen,” after which Graves mentions that “it is not on record, I believe, that he ever killed or even struck in anger his mute fellow-creatures. A single exception, not uncharacteristic, in regard to the latter statement, is related by his son as told by himself. Finding the greyhound, Smoke, one day tearing a Book of Common Prayer in the library, he thought it his duty, at some personal risk, to inflict upon him a serious chastisement. “This,” Mr. W.E. Hamilton says, “was in his High Church days.””<sup>26</sup>

## 10.3 Two events involving alcohol

### 10.3.1 Religious contrition at the British Association

Three months after the conversion of Montgomery, Hamilton’s “local confidant in religious matters”, which had struck him hard and marked the beginning of the most excitable period in his high-church days, in June 1845 the aforementioned meeting of the British Association took place in Cambridge.<sup>27</sup>

Graves, who was present at the meeting, writes: “I had the advantage of sharing the enjoyment, and saw much of Hamilton. Two things struck me in my intercourse with him as noticeable. In all his main characteristics he was unchanged, kindly, humble, ready to hold his own when challenged, but equally disposed to look up to others, and to do full justice to their merits, sympathetic, companionable. But I thought him less calm than he was wont to be, exhibiting symptoms of an over-active mind, of a brain too easily excitable. The other thing by which I was struck was the degree in which his thoughts were occupied by the opinions and practices which he had adopted from the High Church leaders of that time.”<sup>28</sup> The letter to Mr. Montgomery, given above, has shown how strongly he held a footing opposed to that of the Church of Rome; but he was studiously careful in observance of Church festivals and fasts, frequent in his references to the authority of the Church as expressed in the Prayer-book or by her ministers acting officially, impressed with the special and immediate efficacy of her sacraments and other rites. As an illustration of this and of his sensitive conscience I may mention that, returning from one of the hospitable banquets at which he had been among the distinguished guests, he joined me in the evening, and with agitation told me that he had allowed himself to drink more wine than was right: he expressed religious contrition for the excess, and asked me if I would let him kneel down and confess his sin, and then give him absolution. He was perfectly clear in mind and in possession of all his powers; but I judged that at all events what he sought for was not suitable to the state of agitation in which he then was, and I contented myself with the endeavour to strengthen his resolution against a similar failure in the future. Looking to subsequent events, I have doubted whether I ought not have dealt with his communication as one of deeper significance than I then suspected.”<sup>29</sup>

<sup>26</sup> See p. 199, [Graves, 1889, pp. 235-236].

<sup>27</sup> See p. 407. At this meeting Lord Rosse presented his first ‘spiral nebula’, the Whirlpool Nebula, which he had found with the ‘Leviathan’ telescope, see p. 278.

<sup>28</sup> Graves is alluding here to private confession, which seems to have been attractive to Hamilton, and which was the only practice Hamilton asked De Vere about when the latter was defending Roman Catholicism. [Hankins, 1980, p. 243].

<sup>29</sup> [Graves, 1885, p. 490]. For Montgomery’s letter see p. 406.

In the description of this event Graves writes that according to him Hamilton was “perfectly clear in mind and in possession of all his powers,” that is, he was not drunk or even tipsy; Graves calls Hamilton’s feelings of guilt “religious contrition”. Apparently, Hamilton had set some limit for himself, and had drunk more than that. It is rather easy to imagine how that could happen; those banquets were held after a day full of science, and Hamilton always felt happy at such events, indeed, his accounts of the visit to Ely Cathedral after the meeting, and of subsequently residing in Newton’s rooms for about a week, do sound as if he had very much enjoyed it all. While he thus was enthusiastically talking with many people the glasses were filled, probably even without having to ask for it. It is not known how much Hamilton drank but it will not have been much; Graves did not think it to be any problem, what he was worried about was that Hamilton worked too hard, “exhibiting symptoms of an over-active mind, of a brain too easily excitable,” and was too “occupied by the opinions and practices which he had adopted from the High Church leaders of that time.” And Graves explicitly writes that the story about Hamilton’s asking him to let him confess, was meant as “an illustration of this and of his sensitive conscience,” that is, during his high-church days.

Writing about their evening meeting in this biography Graves doubtlessly believed that he just was illustrating Hamilton’s “over-active mind”, his being so occupied by High Church matters and his “sensitive conscience”. But thereafter mentioning that “looking to subsequent events, I have doubted whether I ought not have dealt with his communication as one of deeper significance,” he again laid a veil of darkness over the biography; it rather sounds as if he was warning his readers for an impending alcoholic doom. Graves does not seem to have understood at all how he was further tearing apart Hamilton’s posthumus reputation.

### **Catherine’s visit of 1845 and assumed trouble with alcohol**

In Hankins’ biography the chapter about Catherine is the third last one, and there he summarizes what happened in Hamilton’s daily life between 1844 and Catherine’s first 1848 letter in only one paragraph. He does not give references to where this information exactly comes from, just that Catherine’s visit in 1845 is known from letters from Hamilton to her brothers,<sup>30</sup> and writes: “It was during the year following his discovery of quaternions that Hamilton first began to have trouble with alcohol. The following year, in 1845, his old college friend Thomas Disney paid a visit to the observatory and brought Catherine with him. Hamilton had not seen her since 1830, when he had talked to her at Armagh and had broken the eyepiece of the telescope in his agitation. He left little record of the 1845 visit, but it must have been upsetting in the extreme. In February his problems with alcohol became public knowledge when he collapsed and became violent at the meeting of the Geological Society. In 1847 he suffered the loss of his uncles James and Willey. MacCullagh’s suicide occurred in that same year, and Hamilton confessed that it moved him so profoundly that he could scarcely think of anything else. But the year 1848 was the most tumultuous of all, a turmoil that reflected the political shocks of the “year of revolutions.””<sup>31</sup>

<sup>30</sup> Hankins apparently follows Graves’ opinion about Hamilton’s “infirmity”, see p. 414. For a different interpretation of Graves’ opinion see p. 480.

<sup>31</sup> [Hankins, 1980, p. 348], [Hankins, 1980, p. 449 note 1]

In this essay discussing the event at the Geological Society hereafter since Catherine's visit happened earlier, it can be remarked beforehand that with writing about her visit at some unknown time in 1845, and about the event in February 1846, in two adjacent sentences Hankins seems, perhaps unintended, to take the "trouble with alcohol" as a measure of Hamilton's inner turmoil about Catherine. By summarizing so briefly he leaves the impression that Hamilton, already in the process of losing control over his drinking, was in such distress after Catherine's visit that in the subsequent months he started to drink ever more, until he collapsed in February the next year. Then continuing within the same paragraph with the for Hamilton difficult deaths of his uncles and MacCullagh until he received Catherine's letter in 1848, paints a picture of an unhappy, brooding and alcoholic Hamilton.

Unmentioned in this paragraph, and by its absence deepening the troubled atmosphere, is that after February 1846 Hamilton abstained from alcohol until his 1848 visit to Parsonstown, meaning that both at the time of the deaths of Grace in June 1846 and Hamilton's uncles and MacCullagh in 1847, and during the 1848 six-week correspondence with Catherine, Hamilton did not drink alcohol. Hankins had described the events at the meeting of the British Association and of the Geological Society in an earlier chapter and although there he had assumed that Hamilton drank too much at the meeting of the British Association, he had indeed mentioned the two years of abstinence. Yet in the chapter about Catherine, after giving the aforementioned paragraph he does write about Hamilton ending his period of abstinence in 1848, but without mentioning that, and for how long, Hamilton abstained.<sup>32</sup>

It is unknown how much Catherine's visit affected Hamilton; it may certainly have been "upsetting in the extreme" as Hankins suggests. Still, the idea that Hamilton started to drink ever more from the time of Catherine's visit in an unknown month in 1845 until February 1846, as the here evoked image would suggest, seems to be far too simplistic. These were Hamilton's high-church days; for someone described as being so truthful as Hamilton was, even "simple-minded" in matters of right and wrong, the idea that he was drinking too much for a longer period of time if he already felt religious contrition before even being tipsy, as he did at the meeting of the British Association, just sounds utterly unlikely.

Also unknown is the influence Catherine's visit had on Hamilton's marriage; regarding marriage as sacred,<sup>33</sup> it can be assumed that he will have taken much trouble to not let it get to him. Hamilton may well have been able to use the knowledge he had gained in and after 1832 about how to avoid a subsequent period of depression and gloom, which meant mainly that he should not dwell upon it. And to achieve that, especially during these high-church days Hamilton may have heavily relied on his religion, making it a possibility, the date of Catherine's visit being unknown, that next to the conversion of Hamilton's local confidant Montgomery also Catherine's visit triggered Hamilton to become stricter in his observances; that it thus also contributed to the start of the "most excitable period of his high-church days." Something which would fit more to the descriptions of his character than drinking away distress.

<sup>32</sup> [Hankins, 1980, pp. 222-223], [Hankins, 1980, p. 350]. See in this essay p. 418, ff..

<sup>33</sup> In the Roman Catholic Church marriage is one of the seven sacraments while in the Anglican Church there are only two sacraments, Baptism and Eucharist. But the 'high-church' leaned to Roman Catholicism, leading to the assumption that under the influence of the Oxford Movement Hamilton may have regarded his marriage even more sacramental than he did before.

Hamilton “left little record of this visit,” and therefore Hamilton’s friends most likely did not know about Catherine’s visit. But while writing the biography after Hamilton’s death Graves knew, since according to Hankins’ notes the 1853 letters to Robert and Thomas Disney were in one of Hamilton’s notebooks, probably copied as Hamilton often used to do. Although Graves did not like to write about Catherine, he also wanted to be truthful, and while it is true that Graves did not mention Catherine’s return visit in 1830, he did mention Hamilton’s distress around his visit to her and Lady Campbell’s consolations. And it was suggested earlier that although he did not write about it, he hinted at both Catherine’s return visit and her 1845 visit, mentioning that after his 1830 visit Hamilton “never met her again, except twice, or at the most three times, transiently in society, until more than twenty years afterwards, when she lay upon her deathbed.”<sup>34</sup> If Graves would have thought that the event in February 1846 had anything to do with Catherine’s 1845 visit, or that her visit had directly influenced Hamilton’s drinking alcohol, he would almost doubtlessly again have sought some concealed way to write about it, which he did not.

### Deciding to end the presidency of the R. I. A.

After the meeting of the British Association in June 1845 Hamilton was thinking of stepping down as president of the Royal Irish Academy. In November he wrote to Lloyd: “It has been for a considerable time my wish to retire from the labours and anxieties of the Presidentship of the Royal Irish Academy, not with a view thereby to indulge in repose, but rather to procure more unbroken time for scientific work, and even with the hope of being more useful to the Academy itself as a contributor, than I can hope to be as a President.

“Some years ago a course of this kind was recommended to me by Lord Adare; but it has not been till within somewhat more than a year past that I have felt an opinion gaining ground in my own mind that I should, by adopting it, have an increased power of being useful to the public, as well as of indulging my own personal bent, which is quite as strongly directed towards scientific study as it ever was.

“When John Graves and I were talking over the Quaternions here, in the October of last year (1844), I expressed to him a wish to retire, for the purpose of being freer to pursue mathematical studies: from which, however, he dissuaded me at the time.

“This year, and especially this summer and autumn, I have expressed myself very strongly on the subject, in conversations as they accidentally arose, or as I brought them on, with several private friends; of whom, indeed, most, being doubtless biassed by personal regard, thought that I might with advantage postpone the execution of my purpose: but who could not deny the weight of the reasons which induced me to entertain such a desire.

“As the time for the renewal of business in the Academy has been approaching, I have been induced to turn the subject over again and again in my own mind; and have never once been perplexed by any wavering in my own judgment; or any doubt of my being likely to be in a position happier for myself, and more useful to others, by retiring into the ranks of private membership. And it is almost certain that I shall make some communication to that effect, either to the Council or to the Academy, or both, before the end of the present month.”

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<sup>34</sup> See p. 86, footnote 73 on p. 88.

Hamilton concluded this letter writing: "Except a rather heavy cold just now upon me, I am in excellent general health, and have fully as great delight as ever in study. Indeed I feel a hope, or entertain a fancy, that I am more able, or more disposed, to grapple now with some difficult things in the works of other mathematicians than I have ever been; and am pursuing some original researches, perhaps of no great value, with much relish." Since William Rathborne was 'dangerously ill' Hamilton could not attend the meeting, but Lloyd answered that he had "laid" his "letter before the Council."<sup>35</sup>

In December Hamilton wrote to Eliza that he was "going to resign [. . .] in March next: who will be elected in my stead I cannot tell; the Club, last Monday, drank my health standing (which posture they do not usually employ for other toasts, even for the Queen's health), and many inquiries were made, whether my resolution was unalterable; but I assured them that I had very carefully considered the matter. The situation has been too great a drain of my energy from scientific pursuits, and I have other reasons for wishing to be able to be more at home. A new scientific periodical, the *Cambridge and Dublin Mathematical Journal*, to which I am a contributor, is expected to be published about this time; and will add to the claims which private study has upon me." The first issue was indeed published in December 1845.<sup>36</sup>

And on Christmas eve 1845 Hamilton wrote to Adare: "As it is impossible for me, at this moment, to write at all fully, let me mention one circumstance to show that you have been in my thoughts, and have influenced my opinions and conduct recently. You may possibly have learned, even through the Dublin papers, that I have lately announced my intention of retiring from the Presidentship of the Royal Irish Academy. The subject had been long in my thoughts, but especially since my last visit to Cambridge, which greatly increased my desire for pursuing scientific study; and I turned it frequently in my mind, during some months that I spent almost entirely at home, and very busy, after my return from that visit. I had all but come to the conclusion that it would be right for me to resign the distinction, which had been highly gratifying to me, and had allowed me to be (as I hope) of some use to our National Academy, in order that I might try to be of still more use, as a contributor to its *Transactions*, and have more leisure and quiet for private thought and study: but had not yet consulted anyone, nor perfectly decided whether I should take the step immediately, while yet I felt that I ought to decide, one way or the other, before the session of 1845-6 began: when about two months ago, in turning over some old letters of yours, I found one which had contained a strong advice rather to give up the office than to let it interfere too much with my own personal time, and intellectual duties as an individual man. I allowed this to determine my movements, and wrote the next day letters which announced my decisive intention. I have never since regretted my decision, and am sure that I never shall. I really hope soon to tell you more about myself and all here, but must now only wish you many happy Christmases, in every sense of the word. Very affectionately yours."

<sup>35</sup> [Graves, 1885, pp. 496-497]

<sup>36</sup> [Graves, 1885, p. 500]. Hamilton's contribution to establishing this journal, and the work it will have brought with it after the meeting in Cambridge in 1845, can be derived from Crilly, T. (2004), *The Cambridge Mathematical Journal and its descendants: the linchpin of a research community in the early and mid-Victorian Age. Historia Mathematica* 31 (4): 455-497. [www.sciencedirect.com/science/article/pii/S0315086004000205](http://www.sciencedirect.com/science/article/pii/S0315086004000205). *The Cambridge and Dublin Mathematical Journal* (1845-1854) was the successor of *The Cambridge Mathematical Journal* (1836-1845).

On the 2<sup>nd</sup> of February 1846 he wrote to De Morgan, "I have not been exclusively occupied by my quaternions, but confess that they have been growing in interest upon me, and that I more and more believe they will one day justify a hope which I ventured to express in an address to the Royal Irish Academy on the first night of its session of 1844-5, namely, that they will constitute nothing less than "a new algebraic geometry". De Morgan agreed: "The quaternions will, I have no doubt, make a system in which rotations round the three axes play the part of co-ordinates, complete in itself. [...] I was glad to hear that you are going to resign the Presidentship. You have no business there at all; there are plenty of people who can do all that a President, as such, has to do; and I maintain that any man who is fit for original research has no business to be a president, or secretary, or treasurer, at the expense of his researches."

Graves writes: "In a small note-book I find the following pencilled entry: – "Monday, March 16, 1846. The day has at length arrived when I am to accomplish my desire of retiring from the Chair of the Royal Irish Academy. How joyously, though not without a feeling of solemnity, I received the news of my being elected to the Chair on the 11th of December, 1837! How gladly now I resign it, yet not without a shade of that sadness which belongs to a farewell!"<sup>37</sup>

### 10.3.2 Disturbed reason at the Geological Society

At the meeting of the British Association in June 1845 Graves had doubted if, with declining Hamilton's wish to let him confess, he had made the right decision; the reason of his doubts was the aforementioned event at the meeting of the Geological Society about seven months later. In the process of describing 1846 Graves writes: "On the 11th of February occurred an incident of critical importance in connexion with the infirmity which was the one shadow upon the brightness of Hamilton's life and character: that infirmity was a tendency to indulge to excess in alcoholic stimulants. In the time of Hamilton's early manhood it was, as is well known, the general habit to drink much more wine at and after dinner than happily is now usual, and being of a genial disposition he freely, when he dined abroad, conformed to the custom prevailing among his fellow-guests, and, occupied in the conversation, filled his glass in his turn. But for many years his own home was a place where the strictest temperance reigned. I can state this partly from my own observation; but I received, just after Hamilton's death, the fullest confirmation of my impression from the testimony of the late Earl of Dunraven, who told me that, during the whole of his stay as a pupil at the Observatory, Hamilton's life was one of absolute abstemiousness as to stimulant beverages.<sup>38</sup> As time went on, partly from the ill-health of his wife, he fell into the habit, as I have already mentioned, of carrying on his absorbing studies regardless of any fixed hours for meals, and instead of continuing his former practice of diffusing vital warmth after the vigils of the meridian room by the safe comfort of a cup of hot coffee at the fire-side, he adopted one that was fraught with inevitable harm. It was thus, I have learned on good authority, that an habitual craving for such stimulus was originated; it was only, I believe, in the course of a year or two before the time now arrived at, that friends began to fear that he was in danger of losing

<sup>37</sup> [Graves, 1885, p. 501], [Graves, 1885, pp. 503-505], [Graves, 1885, p. 510]

<sup>38</sup> This whole part seems to be showing the severity of the gossip about Hamilton at that time.



control over the propensity. And at first the danger only showed itself occasionally. He worked, as has been seen, with unflagging industry; his intellect was as powerful and as bright as ever, though, as has been said, more excitable, and his greatest scientific achievements were steadily carried through. I may add, as I have the proofs before me, that his handwriting was now as firm, and clear, and flowing as ever, showing no indication of any weakness of nerve, any more than the matter showed any the slightest failure in strong and extensively consecutive reasoning. On the day above mentioned, he dined with the Members of the Geological Society in preparation for their Anniversary Meeting. His mind was full of the confirmation, which the morning's post had brought him from the Markree Observatory, of an idea which had occurred to him, that the expansion as well as elevation of the whole surface of Ireland was different in summer and in winter, and that experiments by spirit-levels properly conducted would determine the movements. He discussed the subject with geological friends, who were much interested in this suggestion of a new connexion between astronomy and geology, and the pleasurable excitement which the discussion caused him was increased by his being called on to acknowledge by a speech the toast of the University. In letters to me and to another friend, giving an account of the incident, he says that he had been for some months living in a very quiet and abstemious manner, working very hard, and that on this account the unusual intellectual excitement at the table, in addition to his taking what he was told was only a moderate quantity of wine, had a peculiar effect upon him. At the top of a high flight of stairs he was seized with giddiness, accompanied by a rush of blood to the head, and became conscious that he could not keep his ideas under control, that in fact his reason was disturbed for a time. The result was that he became violent, and had to be restrained: I forbear from going into further details. Suffice it to say, this painful event became generally known, and was much talked of in society."<sup>39</sup>

### **A reputation, a counsel, and whatever happened never happened again**

Of course, seeing such an important man as Hamilton, knowing him as lively and direct, genial and humble, becoming violent must have made a deep impression on the people who were present. And it was yet again a reason to gossip about him, next to the long absences of Lady Hamilton in previous years, Graves' perhaps too happy article in the *Dublin University Magazine*, and his 'monstrous' non-commutative quaternion system, often just seen as abstruse studies; Hamilton's reputation was now in serious jeopardy.

Graves continues: "I record what followed, because it was not less to the honour of Hamilton than to that of a friend who saw that the juncture called for decisive action. The Rev. Charles Graves (now Bishop of Limerick) was his junior in standing, but he was his brother professor and his friend, and he trusted that these circumstances, and his sacred profession as a clergyman, would be considered by Hamilton as sanctioning his intervention. He did not misconceive the character of Hamilton. He went out to the Observatory on the following Sunday, and after he had represented to his friend the importance to his reputation, and to his whole future life, of making now a

<sup>39</sup> [Graves, 1885, pp. 505-507]. If an island, like Ireland, would be expanding in summer, an observatory exactly in the middle would just rise up, but an observatory along the coast would tilt. Dunsink Observatory, on the east coast of Ireland, and Markree Observatory on the northwest coast, should thus see an almost opposite tilting effect. This idea was indeed confirmed.



resolution which would save him from any such future disgrace, he had the happiness of hearing Hamilton thank him for the part he was taking, and declare his intention (though without making a vow) to adopt a regimen of entire abstinence from alcoholic stimulants. This intention was at once put into execution, and was acted upon persistently for about two years.”

On the 2<sup>nd</sup> of March Hamilton wrote a memorandum to the president of the Geological Society Robert Mallet (1810-1881). After putting to paper his novel geological idea, at the end of the memorandum he wrote: “The conversation in which I was engaged with you and others on this and similar subjects at the last anniversary dinner of the Geological Society interested and excited me at the time very much indeed; and if you think the foregoing memorandum, which I have drawn up at your desire, worthy of being incorporated in any communication of your own to the Society, it is perfectly at your service for that purpose.” The paper was indeed published in the *Journal of the Geological Society of Dublin* for 1846, communicated by Mallet.<sup>40</sup>

In a “private” post scriptum Hamilton added: “As I had been living more abstemiously and working harder than usual, for some time at home, before the dinner alluded to in the accompanying note, the excitement of the conversation, the speeches, and the wine (though at the moment it did not seem to me that I was taking at all too much) turned out to be more than I could bear: and at the top of the Club House stairs, on my way to attend the Geological meeting, if the attack has not disturbed my recollection of the precise circumstances, I was seized with a giddiness and rush of blood to the head, which totally incapacitated me from so attending, and indeed from keeping my ideas under my control. But I have since adopted, and intend to persevere in, a regimen so severe, as to make it unlikely, if not impossible, that such a state of things should ever occur again.”<sup>41</sup>

It is not known whether or not Hamilton drank too much; from his letter it is clear that he did not think so, moreover, Graves mentioned that Hamilton “was told” that he only drank a moderate quantity of wine. Although Hamilton took into account that “the attack [may have] disturbed my recollection of the precise circumstances,” he thus spoke with people who had been present at the dinner; he was not too humiliated to ask, and they also did not think he drank too much. Moreover, the meeting would be held after the dinner, and he will certainly have planned not to drink so much that he would risk not being able to attend it. It is of course possible that, having his years of experience with alcohol at dinners and trusting himself to always be able to stop after the usual, or perhaps planned, amount of drinks, but this time not used anymore to regularly drinking alcohol due to the “very quiet and abstemious” months, he made an error of judgement with respect to the amount of wine he could drink without losing control.

Still, reading the description of the “attack”, it can be noticed that it indeed does not really sound like drunkenness. If Hamilton had been drunk and would have been drunk more often he would have known that he would lose control over his ideas, that is what happens when someone is drunk. His description of what happened rather does sound like some sort of attack; he just had had a very enjoyable dinner, full of “unusual intellectual excitement” due to his geological-astronomical idea of which

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<sup>40</sup> *Journal of the Geological Society of Dublin*, Vol. III, 1849. Dublin: Printed for the Society. <https://archive.org/details/journal03unkngoog>. Hamilton’s letter can be found on pp. 184-185.

<sup>41</sup> [Graves, 1885, pp. 507-509]

the morning post had brought him the confirmation, and “the pleasurable excitement which the discussion caused him” having been “increased by his being called on to acknowledge by a speech the toast of the University.” In the end it can simply not be known with certainty whether his attack was solely due to alcohol, or to the combination of the wine, the excitement and the abstemious period before the meeting, or that it really was something else. But whatever the precise reason was for this to happen, according to both Graves and Hankins an event such as this one never happened again.

## 10.4 Two years of abstinence

From Graves’ description of the “counsel”, in which he wrote that Charles Graves “had represented to his friend the importance to his reputation, and to his whole future life” and that he should make “now a resolution which would save him from any such future disgrace,” as well as from Hamilton’s letter to Mallet, in which he assured him that he had “since adopted, and intend to persevere in, a regimen so severe, as to make it unlikely, if not impossible, that such a state of things should ever occur again,” two things are very clear.

The first is that the counsel was a conversation, a warning, and not anything like a counsel in the present meaning of the word; Hamilton did not need treatment or help to stop drinking, he just stopped. The second is that Charles Graves’ proposal of abstinence was not suggested by any concern about Hamilton’s health or deterioration of mind, even Graves apparently felt the need to explicitly mention that his handwriting was “as firm, and clear, and flowing as ever”; it was all about his reputation. And that his reputation was also Hamilton’s main motivation can be induced from his careful chosen words when he wrote that “such a state of things” could not happen again since he now completely abstained; it surely sounds as if he had reasoned that if he would not drink alcohol at all a next time he would suffer from such an attack, as he believed it had been, no-one could blame it on alcohol again.

Indeed, from some remarks made by Hamilton in the first months of his abstinence it appears that, next to trying to stop the gossip which is presumed to have been the motivation in the first place, he was more motivated to abstain from alcohol by the feeling that he could work even more steadily on his quaternions, than by moral objections against drinking alcohol or concerns over his health. In April 1846 Hamilton wrote to Lloyd, who was now president of the Royal Irish Academy, “About ten weeks ago I turned a water-drinker, and have found advantages in that, as in other ways, from adhering rigorously to this system; among the results of which is a more uniform action of the intellect than even minute and occasional deviations from it allow to a person of excitable temperament. In a moral point of view this result is trifling, compared with others: still, whatever momentary privations may have been imposed by the adoption of this new regimen have ere now been amply repaid, were it by no more than the satisfaction of seeing the Symbolical Geometry (founded on the quaternions) growing up under my eyes to a state in which it promises, if I do not deceive myself, to be a most important organ of research in the application of symbols to all relations of space, in the pure and mixed mathematics.”

Five days later he wrote to Graves: "I feel great thankfulness in being able to say that I have adhered rigorously to the abstemious regimen which in the middle of February I adopted on the advice of Charles: not having taken since so much as a single glass, or indeed any quantity, however small, of wine or beer, or any equivalent beverage. Whatever temporary inconvenience the adoption of this course may have occasioned has long since disappeared; and I find, as you expected that I should do so, more capability of continued and equable exertion." He apparently used his abstemiousness to work even harder; in May 1846 he wrote in his journal: "Whatever increased power or leisure for study has been gained by the two great measures of giving up the Presidentship, and adopting a water beverage, has been used by me so fully that I suspect I have of late been working rather too hard."

In August 1846 he visited John Herschel and his family in England, and in October he wrote about this visit to George Peacock, Dean of Ely and mathematician, "[I] enjoyed a very delightful visit to Sir John and Lady Herschel and their children there. That visit, which lasted for a week, could not fail to be an instructive one to my mind. I may add that it was useful to my body, for during it my health suddenly improved, and has been permanently better since. About eight months ago I totally gave up wine and every equivalent beverage; and perhaps some time was required to adapt my constitution to the change, as I had previously taken my full share, when stimulated by society, of what are called the pleasures of the table: but having, thank God, been able to adhere rigidly to a solution once formed (though unaccompanied by any pledge or vow) for two-thirds of a year, I feel by this time a more firmly settled health, though possibly somewhat less strength of body, and drink with real relish a mug of new milk every morning. If health alone had been my object, perhaps I should have taken less tea and coffee than I do, and have gone through a less amount of study and intellectual exertion."<sup>42</sup>

After October 1846 Hamilton did not mention his abstinence anymore, and ending the presidentship seems to have had more influence than the energy gained by his abstinence; in May 1848 he wrote in his manuscript book: "Now that I have relieved myself of the cares and labours of the Presidentship of the Royal Irish Academy, and devoted myself more fully than before to the habits and duties of a student's life, I feel, more forcibly than the distractions of my former career allowed me to do, the desire and almost the necessity of combining literature with science, philosophy with mathematics."<sup>43</sup>

## 10.5 Difficult periods between 1848 and 1854

### Drinking again in Parsonstown

After two and a half years of abstinence, at some time during his visit to Parsonstown Observatory which started on the 27<sup>th</sup> of August 1848, Airy persuaded Hamilton to drink a glass of champagne. Graves writes: "It is [...] painful to me to be obliged to add that in the matter of Hamilton's infirmity this meeting proved an injury, doubtless unintended by him who caused it, as it seems also to have been received by the sufferer with scarcely any disturbing consciousness of the evil it involved. Up to

<sup>42</sup> [Graves, 1885, pp. 519-520], [Graves, 1885, p. 522], p. 407, [Graves, 1885, p. 527]

<sup>43</sup> [Graves, 1885, p. 600]

this time Hamilton had rigorously adhered to his self-denying regimen of abstinence from all alcoholic stimulants, but when challenged to a glass of champagne with rallying expressions that made him ashamed of not being able to control his enjoyment of a pleasure which he did not believe to be a forbidden one, he descended from the vantage ground of the good habit he had built up, and, yielding in this instance, lost for ever his precious safeguard."

Hankins suggests that accepting the glass of champagne was linked to Hamilton's distress about the suicide letter he received from Catherine while being at Parsonstown; he writes about Hamilton "breaking his vow of abstinence:" "the internal torture of Catherine's suicide attempt must have been the real culprit – if a culprit was needed." But it has been elaborately shown in a previous chapter, mainly in order to be able here to take a stand on the matter, that it is extremely unlikely that Hamilton received Catherine's letter before the 11<sup>th</sup> of September, while it appears that Airy then had already left Parsonstown.

### Drinking champagne and Catherine's letter

Approximating when Hamilton drank the glass of champagne, it is certain that it happened after the 30<sup>th</sup> of August since in his letter to James Barlow Hamilton wrote about how they started 'trying each other on English and other literature': "Airy seems to have been a little stimulated by my sonnet; and being otherwise in spirits that evening, he said after dinner, while we were sitting over our wine (though I stuck to the water), that he had in his youthful days read, and still remembered, a great deal of English poetry." And although it is not exactly certain when Airy left, from various letters his time of departure can be deduced. It is known when he arrived at Parsonstown since Hamilton, who arrived on the 27<sup>th</sup>, wrote to De Vere on the 11<sup>th</sup> of September: "Mr. Airy, the Astronomer Royal of England, was here for a fortnight lately, only the first day of which period was before my own arrival, so that I have seen a great deal of him." Airy thus arrived on the 26<sup>th</sup>.<sup>44</sup>

From Airy's biography it is known that his visit to Parsonstown lasted from the 23<sup>rd</sup> of August to the 12<sup>th</sup> of September. Being Astronomer Royal of England he lived at Greenwich Observatory, London, and arriving on the 26<sup>th</sup> means that it took him three days to make the journey. Yet it was possible to make the journey slightly faster than that; the shortest time it took Hamilton to go to London was in 1838 when he attended the banquet for Herschel. He then left Dublin on Tuesday the 12<sup>th</sup> of June 1838 and reached London on the evening of the next day. Adding half a day for the trip from Dublin to Parsonstown, which took Hamilton more than a day but that was due to his love for travelling by boat, would make Airy's journey last for at least two and a half days.

But about going home again Airy writes: "I returned by Liverpool, where I inspected the Liverpool Equatoreal and Clockwork, and examined Mr Lassell's telescopes and grinding apparatus." Thus adding a day, or part of a day, to his journey home makes it last at the very least three days, and probably even four. Arriving in London on the 12<sup>th</sup> of September thus means that he must have left Parsonstown on the 9<sup>th</sup>, and probably even on the 8<sup>th</sup> of September. An extra argument to assume that Airy left on the 9<sup>th</sup> is that on the 11<sup>th</sup> of September Hamilton wrote to De Vere

<sup>44</sup> [Graves, 1885, p. 632], [Hankins, 1980, p. 350], [Graves, 1885, p. 622], p. 282, p. 281, p. 283 ff.

that Airy had been there for a “fortnight”, and having been the mathematician he was he would hardly write a “fortnight” if it had not been fourteen days; Airy will thus have left on the 9<sup>th</sup> of September.<sup>45</sup> Of course, Hamilton may have drunk the glass of champagne on the day Airy left, if it was for instance a toast to wish him a good journey home, but assuming that Airy drank with him since according to Graves he “rallied” him, it is more logical that it happened in the evening; travelling was not easy in those times. Therefore, assuming that Airy indeed left on the 9<sup>th</sup> and they did not drink on the day he left, Hamilton drank the glass of champagne on or before the 8<sup>th</sup> of September.

If, as was extensively argued, Hamilton did receive Catherine’s letter after the 11<sup>th</sup> of September,<sup>46</sup> Hamilton thus drank his first glass before the arrival of her letter. Being therefore unaware of Catherine’s desperate state of mind, enjoying the company and having finally calmed down from the distressing weeks before his arrival at Parsonstown, it is entirely possible that Hamilton simply saw no objection to drinking the glass of champagne after having shown for such a long time that he was able to control his drinking habits. Moreover, in his eyes he had never failed himself therein, according to him he had always had his drinking habits under control; he had not accepted the suggestion that he had been drinking too much wine at the Geological Society.

It is not known why he drank the glass of champagne in Parsonstown except that he was teased by Airy, but instead of giving in, or even being “ashamed of not being able to control his enjoyment of a pleasure which he did not believe to be a forbidden one” as Graves had put it, he probably just agreed with Airy, being used to drinking alcohol since his youth and having no moral objection to drinking alcohol whatsoever. Indeed, Graves also mentioned that Hamilton had “scarcely any disturbing consciousness of the evil it involved” which means that he did not see the problem. And he had, apparently deliberately, not vowed for abstinence; a vow could have been a reason for him never to drink anymore, he was not a man to break a vow.

Reading the letters written during the years of abstinence he indeed never seems to have been very convinced that it was much better for his health, he was just able to work harder although he felt “somewhat less strength of body;” he even suggested that if it had been for his health he also should have taken less coffee and tea. His main motivation for abstinence seems to have been making sure that he would not find himself again in such circumstances as during the meeting of the Geological Society since it had been extremely damaging for his reputation. And because Hamilton believed that the attack was not due to alcohol, which means that such an attack happening again must have been a real possibility for him, his motivation for abstinence will have been, as mentioned before, that if it would happen again, no-one could blame it on alcohol.

### **An inverse argument**

In case this is still not convincing; suppose that the letter had come earlier, and Hamilton did drink the glass of champagne out of sheer distress over the letter as Hankins

<sup>45</sup> [Graves, 1885, p. 257], p. 283. Hamilton was indeed very precise in matters of time and dates; in an 1838 letter to Adare he remarked that, curiously, William Edwin’s fourth birthday was also the day that Archibald was exactly a thousand days old. [Graves, 1885, p. 256].

<sup>46</sup> See p. 284.

suggests. He then would hardly have stopped after one glass, and not having had any tolerance to alcohol left because of the two years of abstinence, he would have become drunk very soon, which would certainly have led to emotional outpourings; that is what alcohol does. Everyone who has seen someone drink alcohol in an attempt to forget severe sadness and acute distress knows that drama will follow.

Had such drama occurred, or would he accidentally have revealed Catherine's name while under the influence, than that would certainly have been a reason for Hamilton to absolutely stop drinking; he had revealed her name only to her relatives, and to Lady Campbell.<sup>47</sup> Indeed, Graves does not mention anything like this, calling Hamilton a "sufferer" having "scarcely any disturbing consciousness of the evil it involved" while Hamilton certainly would have become conscious of this "evil" had anything dramatic happened; he would have known that the gossip would completely ruin both Catherine's reputation, his own, and with his own reputation also that of his family. And also in the light of Hamilton's life it is very implausible that he drank alcohol in order to forget or to change mood; in the summer of 1832 he had shown that he could change his behaviour if he was convinced that he should, and throughout his life his faith, his family, his friends and his mathematics were his consolations.

#### **'Exposure to the charge of excess'**

After writing that Hamilton "lost for ever his precious safeguard," Graves continues: "and though usually in the future observant of the rules of temperance, especially at home, where his scientific labour was unintermitted, [he] did occasionally expose himself again to the charge of excess. It will be unnecessary to revert to the painful topic. Suffice it now to say that a most exaggerated notion of his weakness, of the degree to which he yielded to it, and of the number of his lapses, became prevalent. Few were the persons who could attach due value to monuments of scientific work, which still fewer could comprehend, while the many could take note of his one failing, and in their partially informed judgments allow it to counterbalance his indefatigable industry, intellectual achievements, his noble moral qualities. The brother Professor who had before hastened to his rescue did not fail again to give him strengthening counsel, which was gratefully received; and the counsel was not without good effect, though it failed to bring about a renewal of the rigorous self-denying ordinance which, with a man so profoundly subjective, could only be self-imposed."<sup>48</sup>

Thus, Graves is again very clear; although Hamilton did not drink much at home he did sometimes drink much when in public, and people were gossiping about that. But he also says that the gossips spoke in a "most exaggerated notion of his weakness [and] of the degree to which he yielded to it," which means that even the strict Graves, who would clearly have preferred that Hamilton would never have touched alcohol again, acknowledges that he did not really become drunk.<sup>49</sup> Moreover, Graves writes that the counsel had effect; although Hamilton did not become a teetotaler, he therefore must have been a moderate drinker for the remainder of his life.

<sup>47</sup> See p. 478.

<sup>48</sup> [Graves, 1885, pp. 632-633]. This remark could be added to the arguments that Lady Hamilton presumably could not have forced Hamilton to work in a different way, or to have him live a healthy lifestyle which he did not choose himself.

<sup>49</sup> That is indeed corroborated by Hankins who states that "there were no more incidents like the one at the Geological Society." See p. 476.

### Publicly drinking without problems

There are indeed several indications, mostly within letters as part of some story, that Hamilton regularly drank in public without drinking much or, in any case, too much. But it seems that only once Hamilton was specific about it, and it certainly sounds as if he reacted to the alcoholic image which apparently existed of him, and to which Graves alluded.

On the 26<sup>th</sup> of May 1851 Hamilton wrote to De Morgan: "Do you know that I am not sure that I may not meet you next week at Greenwich? For some years past the compliment has been paid of inviting me to be present at the Visitation, and to dine (paying, of course) with the Visitors afterwards. The annual card arrived by post this morning, and I am tickling my fancy with the notion that this time I may act upon it. If so, I suppose, we shall be for an hour or two together (on June the 5th). But if so, I must return, perhaps that very evening, without any opportunity of paying my respects to any of my acquaintances in London. It must be, as concerns myself, what the "Herschel Dinner" at the Freemasons' Tavern was in 1838, when I just went to London for that one purpose of attending it, and returned, the purpose being accomplished.<sup>50</sup> 'Tis true that I was provincial enough to visit St. Paul's, and to climb into the Ball – where the strange effect of the wind made me think that it was "the sighing of the Heart of London." Something to that effect I wrote that evening, on board a steam packet, to the late Marquis of Northampton, with whom I was on what might fairly be called intimate terms: with the present Marquis I am merely on terms of a distant civility. (He was not at Castle Ashby when Lady Hamilton and I made our visit to his father there, in the autumn of 1838). But about the "sighing" – am I to quarrel with Dickens, or Dickens with me, because he printed almost the same image or figure in one of his publications of a later date? Where is this priority business to end? I am as sick of it as you can be; but still, in anything important as regards science, I should take it as a favour to be warned, if I were inadvertently exposing myself to the charge of plagiarising. As to verse-writing, I remember copying for Lady Rosse, in 1848, a sonnet, such as it was, which I had composed by starlight in the highest gallery of the great telescope at Parsonstown; and noting that one line resembled some verse of a living poet, to which I was, just then, unable to refer. The only tolerable part of my sonnet was the conclusion, namely,

"Pursuing still its old Homeric march,  
Northward, beneath the pole slow wheeled the Bear;  
Rose overhead the vast Galactic arch;  
Eastward the Pleiads, with their tangled hair;  
Gleamed, to the West, far seen, the lake below,  
And through the trees was heard the river's flow."

"Now, as to the "tangled hair" of the Pleiads, I cannot swear that this may not have been, in some dim and half-conscious way, suggested by the "Locksley Hall" of Alfred Tennyson, at the time forgotten by me. He has, if I now remember – for I won't stir to look for the book – something like this:

<sup>50</sup> See p. 194. De Morgan answered: "I shall not be at the Greenwich dinner, which I shall much regret, if you are to be there. My lectures are so late that I cannot undertake to be there. And in truth there I have never been, nor ever was I at a meeting of the Royal Society, nor at the British Association. In fact, I am the most ungregarious animal living." [Graves, 1889, p. 370].



“Glittered like a swarm of fireflies tangled in a silver braid.”

“Shall I dash boldly, before I stop, into some new verses of my own? They are certainly not worth offering to Mrs. De Morgan, for whom, without prejudice to her title to receive, whenever I can recover them, some more of my old baby lines, I am about to copy a couple of sonnets of my own; and to whom I request you to present them. These are for your own amusement, and are now to be written from a remembrance of what I extemporised, between the acts of shaving yesterday, for the entertainment of a brother rhymester, ...

“The verses, then, that I thus dashed off, on the spur of the first jingle between the sounds of splashing and mashing, were an account, for the said brother versifier, of a dinner of the Royal Irish Academy Club, on Monday last (the Queen’s birthday) while a flag was flying, in honour of that day (May 24), from the top of Nelson’s Pillar; and they were these – if I can remember them rightly: –

I helped the soup without any splashing,  
Also the salmon without much mashing;  
Cut up the fowls in morsels nice,  
And served about the melting ice;  
And, seeking every taste to please,  
Scooped out the ripe and rotten cheese.  
Then, rising from the Chairman’s seat –  
But first our Dean had blessed the meat,  
And in our names due thanks had given  
For all the boons of gracious heaven –  
I called on all the social Board  
Their hearts and voices to afford,  
With loyal and with glad acclaim  
To welcome a majestic name;  
And, on our sovereign’s natal day,  
In cordial, earnest, toast to say:  
Long be her years, bright and serene!  
Victoria’s health! God bless the Queen!

“That the decanters did not circulate too fast, nor too often, may perhaps be inferred, in my case, from the circumstance that I was called on, that evening, with scarcely any notice, and spoke for about an hour respecting the Biquaternions,<sup>51</sup> receiving all sorts of compliments afterwards from the President (Dr. Robinson) and the Academy. Seriously, they open a new world of difficulty, for some future Alexander to conquer. It is honour enough for me to have indicated the direction.

“I must tell you that my daughter behaved very well yesterday – though, just before the operation, she whispered to me that she should like to be put asleep. She had been given her choice. You would have mesmerized her; I was content with chloroform, and the dose given was not enough to prevent her from having a sort of dream-like consciousness. She is doing very well. My cousin Hutton is a skilful surgeon.

“I walked out from Dublin, after the evening meeting – more than five miles. The night was fine.”<sup>52</sup>

<sup>51</sup> Biquaternions have complex numbers as their coefficients instead of real numbers.

<sup>52</sup> [Graves, 1889, pp. 367-369]. Hamilton’s cousin will have been Edward Hutton (1797-1865) of

### The date of the second counsel

Graves does not give a date for the second counsel, which was again given by Charles Graves and served as a warning because Hamilton “did occasionally expose himself again to the charge of excess,” causing much gossip in Dublin. This period will not have lasted very long; Graves’ use of the word ‘occasionally’ does not indicate years of drinking to excess. And there was no reason for Charles Graves to wait with a second counsel if he thought it was necessary; Hamilton had responded well the first time, and would doubtlessly respond positively again.

But without Graves giving dates, the only clear indication for a time frame can be found in remarks from Graves in relation to a letter from Lady Campbell. Graves had not given correspondence with Lady Campbell over some years; he only mentioned her a few times as Hamilton’s confidante. Starting to describe 1854 Graves reintroduces Lady Campbell “to the reader” by the remark that also Lady Campbell had given Hamilton “wise counsel”: “[She] had not failed earnestly to plead with him his own cause, when she heard of the danger that threatened him of being dominated by a fatal habit; and now, at the beginning of this year, congratulating him on the publication of his *Lectures*, she had written – “I hear the Quaternions is a wonderful book, and sheds a light on Ireland. You know how I love to be proud of you, so I need not tell you how I rejoiced to hear this.””

It is not known whether Lady Campbell used the word ‘fatal’ or if that was Graves’ idea about the habit of regularly drinking alcohol, but the quoted part of Lady Campbell’s letter does not at all sound as if she had saved Hamilton from a certain imminent alcohol related death just some weeks ago. It is also not known how Graves knew about her counsel; perhaps Lady Campbell wrote a letter to Hamilton, or Hamilton may somehow have mentioned it in one of his journals or notebooks. It is in any case unfortunate that Graves did not give Lady Campbell’s exact words since they would be an indication of how bad Hamilton’s “fatal habit” had actually been.

The way Graves mentions Lady Campbell’s “wise counsel” as having been given in the past, combined with her happy tone while congratulating Hamilton with his book, indicates that her counsel was in any case given before that letter, and that Hamilton thus had changed his behaviour before January 1854. Graves does not mention how Hamilton had reacted to Lady Campbell’s counsel, but he does remark that Charles Graves’ counsel “was not without good effect”; Hamilton apparently changed his behaviour thereafter, and Lady Campbell not being worried anymore means that also Charles Graves’ counsel was given before January 1854.

Graves does not mention any letters or remarks by his brother Charles in connection to Hamilton either before or after the counsel, therefore only Lady Campbell’s reactions to Hamilton can be used to try to further narrow the time frame in which Hamilton ‘occasionally drank to excess’. After Lady Campbell became a widow in 1849 Hamilton had not been frequently in contact with her anymore; describing 1851 and Eliza’s death in May that year Graves writes: “When the last rites were over, Hamilton sought relief for his feelings, which had been strained and depressed, in a short excursion into the county Wicklow, and on the way he visited his old friend Lady Campbell, then resident with her daughters at Frascati, Blackrock.”<sup>53</sup>

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the Richmond Hospital in Dublin.

<sup>53</sup> [Graves, 1889, p. 17], [Graves, 1885, p. 670]

And in January 1852 Hamilton wrote to De Morgan: "My dear De Morgan. To save time, may not I as well call you so, and you call me dear Hamilton? I respect your English prejudice against that sort of thing, but your note of 1841, which has just (last night) turned up, reminds me that we WERE once introduced. Of course you will say, we could be only once "introduced"; but I can prove the contrary, at least by the expressed opinion of a lady to whom I have very long looked up, and to whom I used, about a year ago, in perhaps a fit of playful spleen (reciprocated at the moment by her), some such expression about "introduction". I speak of Lady (Guy) Campbell, daughter of Lord Edward Fitzgerald [...] with whom, to my own great moral advantage, I was intimate an immense time ago, and who always gave me the best advice, and the most friendly counsel – not that she was so much older than myself; and comforted me much about my antenuptial troubles [...]. Well, what has all this to say to you? merely that meeting Lady Campbell at a Dublin Musical party, given (I think) by Mrs. Charles Graves, and at which I met my old pupil the present Earl of Dunraven, who was also a prodigious admirer, in the innocent sense, of the lady already mentioned, I asked Dunraven, in my momentary flurry, to "introduce" me to Lady Campbell, on which she (having overheard me) said, in a pretended huff, "Yes, that is just the word, you are to be *introduced* to me." I must own that in point of fact I had not seen her for two or three years – not since she became a widow.

"Lady Hamilton and I have since visited Lady Campbell, and some of her charming children, who live now more than ten miles away from us."

Judging from the story Hamilton had not spoken nor corresponded with Lady Campbell between January 1849 when Sir Guy Campbell died, and their meeting at the musical party, of which no date is given except that it most likely was in 1851 since Hamilton mentioned that Lady Campbell had become a widow "two or three years" earlier. But it is known that the party was held before Eliza's death on the 14<sup>th</sup> of May 1851 since Hamilton visited Lady Campbell, either together with Lady Hamilton or alone, directly after Eliza's death during a "short excursion". This in turn must have happened before the dinner on the 24<sup>th</sup> of May, the Queen's birthday, since Graves uses the word 'excursion' for trips lasting for at the most a few days; assuming that the "rites" after Eliza's death took a week or slightly less and the excursion a few days, Hamilton was indeed back again in Dublin in time for the dinner. And describing that dinner Hamilton alluded, for what seems to be the only time in Graves' biography, to his way of drinking, or rather to the gossip about it.<sup>54</sup>

A perfectly likely scenario can therefore be that at the party, of which Hamilton mentioned that he thought that Mrs. Graves had organized it and it thus can be assumed that she was also present, both the Graves family and Lady Campbell observed how much Hamilton drank. It is known that Hamilton did not drink so much as to become drunk since Graves mentioned that the gossips were exaggerated, but it is certainly possible that Hamilton drank so much as to make them concerned for him. And it is possible that they heard that other guests were gossiping about him even if he did not drink much at all. If they then talked about that, they may have agreed upon taking action, leading to the counsels of both Charles Graves and Lady Campbell.

<sup>54</sup> [Graves, 1889, pp. 328-329]. Mentioning "two or three years" seems to be the only time that Hamilton was sloppy about times and dates; but while writing the letter to De Morgan it was indeed almost exactly three years ago, and during the musical party about two years.

Indeed, looking at the letter which Hamilton wrote to De Morgan about that party, thereby realizing that he wrote it in January 1852, thus more than half a year later, it can be seen that it is very well possible that Lady Campbell gave her “wise counsel” before Hamilton wrote that letter to De Morgan since in the letter Hamilton wrote that she “always gave me the best advice, and the most friendly counsel – not that she was so much older than myself; and comforted me much about my antenuptial troubles.” These sentences certainly allow for the possibility that she had also given him “advice” or “friendly counsel” about half a year ago.

This scenario would thus allow for the possibility that both counsels were given in 1851, and that also Lady Campbell’s counsel consisted of warning Hamilton about the gossip in Dublin. It is unknown whether Lady Hamilton accompanied Hamilton on his “short excursion” after Eliza’s death in May 1851, or even if they visited Lady Campbell before or after that; there is not any indication for the time of this visit other than that it was after the musical party and before the 1852 letter to De Morgan. Yet it is the only time in Graves’ biography that there is mention of Lady Hamilton accompanying her husband on a visit to Lady Campbell, and it therefore is not at all unthinkable that on that visit the three of them talked about the gossip in Dublin or at the party, and that Lady Campbell then warned Hamilton to take better care of his reputation. Another possibility is that the Hamiltons visited Lady Campbell together after she warned him, and that they came to thank her for the change she brought about because, even though Hamilton ‘was always temperate at home’, Lady Hamilton will certainly have felt the influence of the gossip in Dublin.

### **Not drinking because of Catherine**

But this rather plausible scenario, in which both Charles Graves’ and Lady Campbell’s counsels were given in 1851, is of course not certain, and it still can be assumed that Hamilton ‘occasionally drank to excess’ until January 1854. That would mean that this period of drinking, between the start in Parsonstown in 1848 and Charles Graves’ second counsel, given at the latest in January 1854, almost exactly coincided with the period between the arrival of Catherine’s distressed letter in October 1848 and her death early in November 1853, which could again be seen as a proof that Hamilton drank because of his pain and anguish about Catherine.

Hankins mentions that Hamilton had been “astonished that he had had the constancy to [work] while suffering the anxiety of Catherine’s illness and his own separation from her,” and during the months after Catherine’s death Hamilton certainly was in distress; in December 1853 he wrote to De Morgan that the subject had “continued to agitate me to a degree beyond which is rational.” But Graves explicitly mentions that Hamilton had “been at the end of this year unremitting in scientific work and in the performance of social duties” which would hardly have been possible if he was drinking from distress.<sup>55</sup>

A scenario in which Hamilton started to drink even more trying to forget his sorrow after Catherine’s death is also very unlikely if the time line is taken into consideration. If he had already been drinking for years from grief after Catherine’s suicide attempt he would certainly have started drinking more after their “parting interviews” in October 1853, having understood that she had also wanted to marry him,

<sup>55</sup> See p. 294, [Hankins, 1980, p. 353], [Graves, 1885, p. 692].

that he had lost her to a forced and unhappy marriage; that is what would happen to an alcoholic in distress who learns that his perhaps worst nightmare appears to be true. But that would mean that both counsels were given at some time in November or even in December 1853 upon which he almost immediately stopped drinking 'to excess' before January 1854, a very unlikely scenario; for someone drinking to forget it would very hard to do that without much help.

Moreover, Hamilton coped with his grief after Catherine's death by writing very many letters to his correspondents, and according to Hankins "for two months Hamilton concluded his letters with the explanation that he could not abstain from writing about the subject for at least a little while longer." Although not all letters he wrote are given or referred to it can be deduced from the notes at the back of Hankins' biography that Hamilton continued writing letters until May 1854, the frequency apparently having decreased earlier. But that means that, having changed his drinking behaviour before January 1854, it becomes even more unlikely that Hamilton drank to forget his distress; he would have changed his behaviour during what may have been the most difficult months of his life, again a very unlikely scenario.

Similar arguments hold for his later years; not having become a teetotaler, if he drank to forget sorrow or distress he would surely have drunk too much every now and then during some extra difficult time such as his 1861 encounter with Louisa Reid Disney, that is what happens if someone drinks to forget. But after Charles Graves' counsel Hamilton never drank on such a level that his friends became worried again; the counsel had not been "without good effect."

To finally show that the counsels will have been given before Catherine's death, Lady Campbell's letter of January 1854 can be used again. Graves does not give an exact date for the publication of the *Lectures*, but on the 16<sup>th</sup> of July 1853 Hamilton wrote to De Morgan: "My book is actually out. I got a person to *buy* a copy for me yesterday evening, a frolic which will cost me 5s."<sup>56</sup> If Lady Campbell thus congratulated Hamilton with the *Lectures* after half a year, it can be assumed that they had not been in contact after its publication until she wrote her letter in January 1854; the book would certainly have been a subject in a conversation or a correspondence since Hamilton still was full of it and she loved to let him talk about his work.<sup>57</sup>

### Gossip while writing the *Lectures*

The period of 'occasionally exposing himself to the charge of excess' will thus most likely have lasted almost three years, from September 1848 until spring 1851. But if, for certainty, January 1854 is taken, this period almost exactly coincided with both the years between Catherine's letter and her death, and with the writing of the *Lectures*. Hamilton had just started on the book when he received Catherine's first letter in July 1848, which was the beginning of the six-week correspondence. And three

<sup>56</sup> [Graves, 1889, p. 455]. According to *MeasuringWorth*, the income value of a £0 5s 0d commodity in 1853 would be £287 in 2014. [www.measuringworth.com](http://www.measuringworth.com) [Accessed 23 Oct 2015].

<sup>57</sup> See p. 304, p. 182. Yet in 1854 she did not tell him that her *Cabin by the Wayside* was soon to be published; Hamilton wrote to her on the 17<sup>th</sup> of May 1854: "So while you were seeking to draw me out, on May-day last [the first Monday in May], to talk too much about what you were pleased to call my "wonderful" book, you did not give me the least hint that there was a chance of my so soon seeing your "charming" one." He bought her book on the 16<sup>th</sup> yet its publication was announced in the London *Times* of the 25<sup>th</sup> of May 1854; perhaps on May-day she was not yet certain about the day it would be available in the bookstore. See p. 306.

months after the book was published he offered it to her on her deathbed. This connection, between the period of sometimes drinking much and the writing of the *Lectures*, also seems to be far more likely than drinking due to distress over Catherine; Graves did mention that the gossip also became so exaggerated because of Hamilton's relentless writing of this book which only a few could comprehend.

Indeed, it is easy to imagine that in those times with its very strict social rules, to the people who did not know Hamilton very well it must have been strange to see that he was periodically locked up in his study for days or weeks on end, sometimes even working during large parts of the night, while writing some abstruse book.<sup>58</sup> And that will have been aggravated by knowing, or seeing, how between such periods of hard work he socialized while probably drinking as in his youth. It is entirely possible that he sometimes forgot, as he also claimed after the event at the Geological Society, that he was not as used to alcohol anymore as he had been then, since during the long and hermit-like periods of hard work he drank very little; Graves explicitly writes that after starting to drink again in 1848 Hamilton remained to be "observant of the rules of temperance, especially at home."

### 10.5.1 A moderate drinker

In the third part of Graves' biography the stories are given which Graves received as notes from William Edwin, although the hereafter given introduction to the first story, the story depicting Hamilton at the blackboard, sounds as if they also had talked with each other.<sup>59</sup> But regardless whether they talked or wrote, in this introduction Hamilton's drinking habits are discussed for a last time.

Graves writes: "It will be remembered by the reader of this biography that Hamilton was accustomed, even up to the last year of his life, to work continuously in mathematical research or arithmetical calculation for very many consecutive hours, the processes entered upon often requiring for completion such prolonged labour. [...] To continue to the end a task, in which good progress had been made, required, as he was convinced, support and stimulus for the brain, and this he administered to himself in the injurious form of porter taken in small sips as he felt fatigued. The need thus experienced, connected as it was, with his disinclination to be disturbed at his work by regular meals, was, according to his son's testimony, the principal cause of his recourse to alcoholic stimulant, for which he admits that his father had besides a constitutional proclivity, as well as a disposition, arising from his genial nature, to conform to the prevailing custom of the time when he first entered into social life."<sup>60</sup>

<sup>58</sup> Although also some non-mathematical people did have a notion of what he was doing; according to Graves, in 1832 Mrs. Felicia Hemans, having attended one of Hamilton's Introductory Lectures, was "deeply impressed with the picture of astronomical mathematicians in the silence of their closets, living abstracted and apart, and yet in their solitude sympathetic, and able to rule the minds of men. It prompted her to compose that beautiful and highly finished poem, 'The prayer of the lonely Student', which forms one of her *Hymns of Life*." [Graves, 1882, p. 655]. The poem can be found on p. 52 of Hemans, F. (1834), *Scenes and Hymns of Life, with other Religious Poems*. Edinburgh: William Blackwood. <https://archive.org/details/scenesandhymns100hemagoog>.

<sup>59</sup> See p. 341. There is indeed a possibility that they did talk since according to Hankins, Graves "helped [William Edwin] arrange for the publication of the incomplete *Elements*." [Hankins, 1980, p. 379]. Hankins adds that Graves "through his brother Charles persuaded Trinity College to bear the entire cost of its publication."

<sup>60</sup> [Graves, 1889, p. 239]. This seems to be the only time that Graves acknowledges that Hamilton did not *want* to be disturbed in order to come to dinner.



Sipping porter when feeling fatigued does of course not really sound like a severe alcohol problem, and knowing from William Edwin's *Peeps* that he had nothing against alcohol, he liked brandy when he was young and also later in life he drank alcohol, makes it rather doubtful that he would "admit" to Graves that his father had "a constitutional proclivity as well as a disposition to conform to the prevailing custom of the time when he first entered into social life." But Graves was a friend of his father and William Edwin knew him from childhood; it is not known if he would have dared to speak his mind to Graves if he would have disagreed with him on the alcohol issue. Combined with the earlier observation that William Edwin, just like his father, seems to have adapted his stories to the person he was writing to, the idea comes to mind that William Edwin just gave Graves what he wanted.<sup>61</sup>

The beer Hamilton drank was porter, a dark malt flavoured beer. Next to the alcohol thinning his blood, thereby making it easier to sit still for longer periods of time without getting problems with his legs, a problem many elderly mathematicians will recognize, he will also have felt good due to the sugars since he was thinking intensely and apparently fatigued, but did not want to stop working.<sup>62</sup> Apart from the question whether or not it was wise to do this, the combination of the thinning of the blood and the supply of energy may indeed have enabled him to continue to work. But Hamilton also mentioned to work abstemiously for periods; not drinking every day and not drinking to excess at dinners anymore would make him, in the years after the counsels, a moderate drinker.<sup>63</sup>

### 10.5.2 Happily excited after working hard

Between 1848 and 1851, or for certainty 1854, Hamilton sometimes publicly drank much, while at home he was always temperate. Yet, trying to answer the question why Hamilton sometimes drank much if it was not because of Catherine, a differentiation has to be made between the events: drinking more than he thought proper at the meeting of the British Association, probably drinking too much at the meeting of the Geological Society, and occasionally drinking much after Parsonstown.

#### The meetings of the British Association and the Geological Society

In the case of Hamilton's excitability before and during the meeting of the British Association in 1845, everyone had his own view on what was the matter with him. Hamilton himself wrote on the 3<sup>rd</sup> of March 1846, answering to a letter written by John Graves on the day before the event at the Geological Society, that his "excitement the previous year had been caused by Montgomery's conversion," thereby giving him "the most exquisite pain."<sup>64</sup>

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<sup>61</sup> See p. 370, p. 452, p. 350.

<sup>62</sup> Malted grains contain sugars such as maltose and glucose, and indeed, a modern advertisement for a classically brewed Victorian porter reads: "Pale, Amber, Brown and Black Malts and hopped with Fuggles for bitterness and Goldings for aroma and flavour, the aroma of berries, sour fruits and roasted malts and the deep, intense, chocolatey flavours give this dark beer a rich and full-bodied flavour." [www.8sailbrewery.co.uk/Pages/Our Beers.html](http://www.8sailbrewery.co.uk/Pages/Our%20Beers.html) [Accessed 01 Nov 2014].

<sup>63</sup> A bottle of porter contained 50 cl, with an alcohol percentage of around 7.5%, see p. 468. If a standard glass of alcohol contains 12 ml, that is 10 grams of alcohol, a bottle of this porter contains three and one-eighth standard glasses. For what are standard glasses of alcohol see also the website of the Irish Health Service Executive, [www.hse.ie/eng/health/hl/change/Alcohol](http://www.hse.ie/eng/health/hl/change/Alcohol).

<sup>64</sup> [Hankins, 1980, p. 238], [Hankins, 1980, p. 431 note 31]



His mathematical friends, De Morgan and John Graves, believed that he worked too hard, while Graves was “struck [by] the degree in which his thoughts were occupied by the opinions and practices which he had adopted from the High Church leaders of that time;” he indeed mentioned the incident as an illustration thereof and of Hamilton’s “sensitive conscience”. Having remarked, while describing the last part of 1844, that he thought that Hamilton’s “great brain” “had at last begun to feel the incessant strain to which it had been put by abstruse thought,” and knowing that Hamilton had no moral objections against drinking alcohol, Graves believed, or even knew, that Hamilton’s wish to confess was motivated by religious contrition.

Generally the Bible is not understood as forbidding alcohol but certainly as warning to be always temperate since the body is a temple which has to be taken care of. And indeed, Graves did mention that Hamilton “was perfectly clear in mind and in possession of all his powers;” he clearly was not drunk. The most likely scenario is therefore that Hamilton was essentially tired while at the same time happily excited by meeting all the scientific friends he saw only once a year, and while perhaps indeed enthusiastically talking, he just did not pay enough attention to the amount of times his glass was poured, after all, he sat at a banquet. Feeling the alcohol in his blood may have startled him even if he was not drunk or tipsy; he was alarmed in time but felt guilty anyhow. That would also explain Graves’ use of the words “sensitive conscience”.

Around the time of the second incident, at the meeting of the Geological Society, especially Graves and his brother John Graves were still worried about Hamilton’s strict religious opinions. The day before the meeting John Graves wrote his aforementioned letter to Hamilton in which he was “cautious in telling Hamilton that his wife was a Puseyite,” but in the beginning of March 1846 Hamilton answered that he did not have to worry; that Montgomery’s conversion had alarmed him “as to the tendency of a movement, in which I still see much to sympathise with and profit by, but also much to fear and guard against.” Indeed, according to Hankins at the time of the meeting of the Geological Society he had “cooled off already.”<sup>65</sup>

Hamilton gave Graves his account of the incident; he “had been for some months living in a very quiet and abstemious manner, working very hard.” But having been, at the dinner of the Geological Society, even more excited than during the meeting of the British Association since that same morning he had received the confirmation of his geological idea, if he indeed drank too much, which he did not believe himself, it may have been because he had lived abstemiously, causing the “unusual intellectual excitement at the table, in addition to his taking what he was told was only a moderate quantity of wine,” to have more effect on him than he had expected.

### Conclusions about both events

But that means that, although he seems to have been more tired during the summer of 1845 than in February 1846, at both meetings Hamilton was very happy indeed, and both times he drank alcohol after long and rather abstemious periods of hard work. The abstemiousness before the meeting of the Geological Society is known since he explicitly mentioned that in the letter to Graves, and it can be derived about the time before the meeting of the British Association since that was the most

<sup>65</sup> See p. 404, pp. 408-409, [Hankins, 1980, p. 238]. John Graves married Amelia Tooke (1808- ..).

excitable period of his high-church days; at the meeting feeling religious contrition while not even being tipsy yet means that it can safely be assumed that in those days he never drank much. He thus both times drank while being excited, and perhaps he overestimated the amount he could handle safely because he forgot that he was not as used to alcohol anymore as he had been in earlier years.

### Drinking after Parsonstown

About Hamilton's drinking after Parsonstown it can of course still be suggested that Hamilton, even if he drank his first glass of champagne before the arrival of Catherine's letter, started to drink more again because he was shaken by her letter; according to Hankins 1848 was his most difficult year. But there are simple arguments to further support the idea that Hamilton never drank to forget his grief. He did not start drinking when he received her first letter in July; Graves was clear, after having been abstemious he drank his first glass of alcohol at Parsonstown. He thus also did not start to drink when she confessed to her husband and their correspondence stopped, although his "agitation at the end of August of that year was extreme." He did not become an alcoholic in the very difficult months after Catherine's death in 1853 since Charles Graves' counsel, given before 1854, was "not without good effect," and he did not drink while writing disturbed letters to Louisa Reid in 1861; Graves explicitly mentions that at home he was "observant of the rules of temperance."

But it is known that after Hamilton found his quaternions, he was extremely determined for the rest of his life; his very focused work was only interrupted by astronomical events such as eclipses and open days at the Observatory, by seeing family, making short excursions, by arithmetical calculations, puzzles and curious findings such as the Egyptian rule to draw a heptagon, and once a year by the meeting of the British Association. Meeting other people every now and then when he took a leave of his writing may thus have had the same effects on him as the excitement during the meetings of the British Association and the Geological Society; in all cases he was seeing many people and enjoying that after long abstemious periods of concentrated hard work, and for a few years that caused him to occasionally drink much in public. But he did not long for such social gatherings as an excuse to drink; he indeed enjoyed company and good conversations, but only as long as they were just diversions from his most beloved pastime: working on his mathematics.<sup>66</sup>

## 10.6 Temperance and old-fashioned habits

Hamilton thus was, generally, a moderate drinker, yet during his youth, and also during the years between 1848 and 1851 or 1854, he could sometimes drink much when he was in company. Graves pinpointed the start of Hamilton's changed drinking habits to 1842, when Hamilton started drinking at home, and therefore more regular than he had been used to.<sup>67</sup> Knowing that at home Hamilton was always temperate, it must especially have been the regularity of his drinking which worried Graves: "As time went on [...] he fell into the habit, as I have already mentioned,

<sup>66</sup> [Graves, 1889, p. 497], p. 242, p. 224

<sup>67</sup> Hamilton started to drink at home after his wife returned; he thus did not drink to forget the depressed feelings of missing his wife, or his worries about her.

of carrying on his absorbing studies regardless of any fixed hours for meals, and instead of continuing his former practice of diffusing vital warmth after the vigils of the meridian room by the safe comfort of a cup of hot coffee at the fireside, he adopted one that was fraught with inevitable harm. It was thus, I have learned on good authority, that an habitual craving for such stimulus was originated."

From this remark it can be inferred that Graves did not drink regularly himself; he would not have needed an authorities' opinion on the matter if he would have had experience with regular drinking. And trying to tell his readers that Hamilton was actually a very good man, Graves does not really describe someone suffering under his cravings: "A return to his correspondence will prove that essentially, in his general sense of religion and duty, in laborious industry, in generous and just feelings towards all with whom he had to do, he continued the same superior being whom we have seen growing up before us as boy and man, aiming at every virtue and thinking none but high thoughts. It is mournful that what seems to have been an inconsiderate, and at first unconsciously indulged, defect in external regimen of life, for such in the inception was his infirmity, should avail to cast a shade over qualities so solid and so splendid as the moral and intellectual qualities of Hamilton."<sup>68</sup>

But realizing that Hamilton did not see the problem of his drinking and that he was always temperate at home, thereby also realizing that he was very often at home working very hard, it can be concluded that Hamilton did not see his drinking as due to cravings; he did not have to fight cravings to stay temperate. Indeed, Graves seems to have had more trouble with Hamilton's drinking than Hamilton had himself, but not because he thought that Hamilton had in the end become an alcoholic although he did fear for that before the counsels; reading Graves' description the 'shade which was cast over Hamilton's qualities' was his very bad reputation.

It must have been almost unbearable for Graves that such a great person, morally almost perfect, could have a characteristic which he saw as a weakness, and even worse, which was something that was so much gossiped about. From Graves' description of the first counsel after the event at the geological Society, that Charles Graves "represented to his friend the importance to his reputation, and to his whole future life," and that Hamilton should make "now a resolution which would save him from any such future disgrace," it can clearly be seen that aim of the counsels was not to help an addicted Hamilton to fight his cravings even harder; Charles Graves and Lady Campbell will have told him that when he attended a public gathering he had to take his reputation into account; something he apparently did not care about enough.

### Writing the biography in hindsight

Graves laid his veils of darkness over the biography, knowing in hindsight all that had happened and therefore able to forebode events years in advance. His motives to do this may have been that in the 1880s, while writing the biography, he disapproved of regularly drinking alcohol, or even of drinking alcohol altogether. This can be inferred from the introductory remarks he makes when starting to describe the event at the Geological Society; he writes that in Hamilton's youth people used to drink "much more wine than happily now is usual," and that, in the years of his youth,

<sup>68</sup> See p. 421, [Graves, 1885, p. 506], p. 414, [Graves, 1885, p. 335].

“being of a genial disposition he freely, when he dined abroad, conformed to the custom prevailing among his fellow-guests, and, occupied in the conversation, filled his glass in his turn.”<sup>69</sup>

### 10.6.1 The influence of the Temperance Movement

That Graves, in the 1880s, disapproved drinking alcohol would not be surprising because in the 1830s a movement had been formed, called the ‘Temperance Movement’, which aimed to prevent or even eliminate alcohol consumption. The story goes that the movement started in Ireland when in 1829 a Belfast theologian, John Edgar (1798-1866), threw his entire stock of whiskey out of the window. The *Encyclopædia Britannica* writes: “The earliest European organizations were formed in Ireland; the movement began to make effective progress in 1829 with the formation of the Ulster Temperance Society. Thereafter, the movement spread throughout Ireland, to Scotland, and to Britain. [...] On the continent, the earliest temperance organizations seem to have been in existence in Norway and Sweden in 1836 and 1837.”<sup>70</sup>

Initially the movement focused on liquor and less on wine and beer, but later on abstinence. The movement had so much influence in Ireland<sup>71</sup> that this influence, in the sense of the number of total abstainers, was still measured in the 1970s. One of the first anti-alcohol associations was, around 1830, based in Dublin, and in 1838 there were already a number of these associations in Dublin, which indicates that around the time that Lady Hamilton went to England the views in Dublin regarding the use of alcohol were changing rapidly. And that would explain a lot.<sup>72</sup>

### Not adapting to a rapidly changing society

During Hamilton’s life not only the view on drinking alcohol, but also society as a whole was changing rapidly. As mentioned before, the Hamiltons grew up in the late Georgian period, or as regards social conventions, fashion and art, in the Regency

<sup>69</sup> [Graves, 1885, p. 505]. Graves apparently still drank alcohol in 1858 since Hamilton wrote: “April 10. Robert Graves dined and slept here on the 8th, and we drank the health of Lady Hamilton on the 9th that day, yesterday, having been my silver wedding-day.” [Graves, 1889, p. 548]. Knowing how Graves thought about Lady Hamilton, his drinking to her health might seem a bit hypocritical, but it must be realized that Graves had not yet read Lady Hamilton’s letters then, he only did that after Hamilton’s death. It can therefore be assumed that during her lifetime he did not yet think so negatively about her as he did in 1873, when he described his disdain for her in a letter to Ellen de Vere, then Mrs. O’Brien, see p. 483.

<sup>70</sup> [Malcolm, 1986]. Temperance movement, by The Editors of *Encyclopædia Britannica*. [www.britannica.com/topic/temperance-movement](http://www.britannica.com/topic/temperance-movement).

<sup>71</sup> Illustrative of the intensity is that in 1861 a ‘study on temperance’ could even serve as a punishment. In the *Cavan Observer* of June 1861 it can be read: “Sub-Constable Moore summoned a man named Leddy for having been drunk and disorderly in Butlersbridge on the evening of Saturday, the 18th instant, on which occasion there had been a great many more devotees of Bacchus in that peaceful village than Mr. Leddy, and so intent were they on their devotions that they “kept it up” in an extremely jolly, though to unbelievers, disagreeable manner, until four o’clock on the following morning. Mr. Leddy did not appear, but sent in a plea of guilty by a friend. He was fine [sic] 5s., or, in default, 48 hours, study on temperance.” [www.irelandoldnews.com/Cavan/1861/JUN.html](http://www.irelandoldnews.com/Cavan/1861/JUN.html). If the fine would be seen as a ‘commodity’, according to the website *MeasuringWorth* the income value of that commodity is £246. [www.measuringworth.com](http://www.measuringworth.com). [Both websites accessed 08 May 2015].

<sup>72</sup> [Quinn, 2002]. In 1978 there were still more abstainers in Ireland than in almost all other countries except the Islamic countries. [Malcolm, 1986].

period which can, as was suggested, be taken to have lasted from 1789-1832.<sup>73</sup> Emphasizing social gatherings this period can be seen as full of “glamorous elegance, extravagant follies and romantic liaisons,” while placing emphasis on social conventions it can be said that it was marked by “elegance and etiquette,” gallantry and romance, and more freedom for women than they would have in the Victorian era.<sup>74</sup> The Regency period ended when the Hamiltons were in their late twenties, and although they married at the beginning of the Victorian era, social changes are usually gradual; most of the time only in hindsight different eras can be shown to have had different social conventions. Moreover, many people cling to the habits and moralities which were customary in their youths and indeed, throughout the biography especially Hamilton does not seem to have become very Victorian.

Hankins remarks about Hamilton: “He was probably more attentive than most Victorian fathers,” and assumes that that is due to Lady Hamilton’s illnesses. But it can actually be seen everywhere; throughout the biography Hamilton seems to have been more anxious than others when people he cared about were indisposed or ill. In 1833 Lady Hamilton wrote about him that “his whole happiness seems to be in making others happy” and he nursed her, even sweetly. He stayed with his wife during her illness in the first half of 1856 and was very much in doubt whether he would attend the annual meeting of the British Association; only because she felt well enough again just in time he could attend it after all. And he did skip the 1858 meeting when Helen Eliza was very ill and he stayed with her in Trim.

As was discussed earlier, although Hamilton was of course not ‘emancipated’, his attitude towards women seems to have differed from most of the contemporary men; when he was president of the Royal Irish Academy he for instance asked Maria Edgeworth for advice on the subject of “Polite Literature” in Ireland, and Hamilton called her a friend. Indeed, throughout his life he had, next to male friends, also female friends while also getting along fine with their husbands and children, and he was very open about it; in early 1833, still before the marriage, Hamilton wrote to his then wife-to-be: “When your letter reached me on Saturday I was about to mount my horse to ride to Lady Campbell; and as soon as I had read the letter I set out on my voyage of discovery. I crossed the Phoenix Park, through marshy places [...]. At last I found the house I sought, just opposite to the famous strawberry banks upon the Liffey, but not my friend herself; and when, after chatting for a long time with [her husband] Sir Guy and kissing the children, I set out about dusk to return, I perceived that I had forgotten the road, and must trust to the sagacity of Planet, who accordingly brought me home in great style, by a way of her own discovering.”<sup>75</sup>

A strong indication for the idea that Hamilton lived in the past is the earlier mentioned remark made by Graves about the “playful letter” to Lady Campbell in 1854: “A letter, written in a somewhat playful spirit, to his old friend Lady Campbell, discovers in Hamilton the elements which were deeply seated in him of a reverent admiration for woman showing itself in the form of a grave, old-fashioned, gallantry.”<sup>76</sup> Hamilton’s gallantry in the letter showed through his remark that he would never call Lady Campbell by her first name, and his writing that he had asked leave to kiss Mrs.

<sup>73</sup> See footnote 36 on p. 133.

<sup>74</sup> Knowles, R. (2012), *Regency History*, When is the Regency era? [www.regencyhistory.net/2012/09/when-is-regency-era.html](http://www.regencyhistory.net/2012/09/when-is-regency-era.html) [Accessed 21 Jul 2015]. See also footnote 99 on p. 151.

<sup>75</sup> See p. 170, p. 19, p. 151, p. 334, [Graves, 1885, pp. 26-27].

<sup>76</sup> [Graves, 1889, p. 13]. See for the letter p. 220.

Fletcher's hand; his comment that the latter was *comme il faut* seems to indicate indeed that that was not commonplace anymore. But Mrs. Fletcher was eighty-five then; being born in 1770 she lived the largest part of her adult life in the Regency period, and she perhaps found Hamilton's old-fashioned gallantry just fine.

Also Hamilton's sisters were described as old-fashioned; in 1829 Wordsworth visited the Observatory, and he described them to his family: "They are all plain and somewhat old-fashioned in manner." This does not seem to have been meant just negatively though; Wordsworth was very complimentary about Eliza's poems, and some months before his visit he had written to Hamilton, who had sent him poems of himself and Eliza, "I was also much gratified with your sister's verses, which I have read several times over – they are well and vigorously expressed, and the feelings are such as one could wish should exist oftener than they appear to do in the bosoms of *male* astronomers." And in 1833 Wordsworth wrote to Eliza who wanted to publish her poems: "I will gladly [...] state how much I admire your genius, and have been touched with your sensibility."<sup>77</sup>

Yet not adapting to modern times was a choice; Hamilton did not have any problems with adapting his behaviour if he thought he had to. It is known that he adapted his Lectures to his public, he changed his attitudes after his discovery in the summer of 1832, and he changed his behaviour after the counsels by Charles Graves and Lady Campbell. He had always been able to do this; in May 1810, when he was four years and nine months, aunt Sydney wrote to his mother, apparently about a day trip he had made, "Willy began in a very high-flown style when he went into the boat, but very soon he was rather too high for his company; he therefore very cleverly adapted himself to them for the rest of the way, by talking as much folly as he could, and they declared that they had never met a more sensible boy."<sup>78</sup>

## Regency Poets

Hamilton thus seems to be best described as a Regency romantic, giving the impression of living in earlier times through his penchant for romanticism, his extreme politeness, his grave gallantry, and his comparatively free ideas about women which also seem to fit in more with the Regency period than with the Victorian era. Further fitting this picture are Hamilton's deep connection with Wordsworth and his reverence for Coleridge.

Wordsworth and Coleridge are generally seen as the most influential Romantic poets of the Regency period. Hamilton met them and corresponded with them although he was much younger; he was thirty-three years younger than Coleridge, and thirty-five years younger than Wordsworth. He befriended Wordsworth and became godfather to his grandson in 1836; John Wordsworth (1803-1875) had written to Hamilton: "Intending to call my infant son after my honoured father, I left it to him to select the babe's sponsors from the ranks of his literary friends and admirers. I rejoice and am proud that the selection has fallen upon two individuals so distinguished for moral worth and intellectual power as yourself and Mr. Southey." Southey was thirty-one years older than Hamilton.<sup>79</sup>

<sup>77</sup> See p. 277, [Wordsworth, 1979, p. 117], [Wordsworth, 1979, p. 30], [Wordsworth, 1979, p. 580].

<sup>78</sup> [Graves, 1882, p. 38]

<sup>79</sup> [Graves, 1885, pp. 175-176]



De Vere wrote about Wordsworth's high esteem of Hamilton: "One night, while we stood beside his little domestic lake, Rydal, as it glistened in the beam of a low-hung moon, Wordsworth said, 'I have known crowds of clever men, as everyone has; not a few of high abilities, and several of real genius; yet I have only seen one whom I should call wonderful – Coleridge.'" He then added: "But I should not say that; for I have known one other man, a fellow-countryman of yours, who was wonderful also – Sir William Rowan Hamilton; and he was singularly like Coleridge.""<sup>80</sup>

And this high esteem was mutual; after Hamilton's death an anecdote stemming from 1829 was "communicated" to Graves "on the authority of Hamilton's intimate friend" Dr. Samuel O'Sullivan: "When Wordsworth visited Hamilton at the Observatory he took occasion to say, 'I feel happy in a pleasure rarely enjoyed by me, that of being in the company of a man to whom I can look up.'" "If I," replied Hamilton, "am to look down on you, it is only as Lord Rosse looks down in his telescope to see the stars of heaven reflected.""<sup>81</sup> Indeed, being so intertwined with both Coleridge and Wordsworth can be another strong indication that Hamilton was more at home in the Regency than in the Victorian period.

### No objections to alcohol

At the same time not much can be said with certainty about Lady Hamilton in this sense since from her letters Graves gives only one sentence, and Hankins only scarcely quotes from them; there is simply not much information about her. But it was argued before that, contrary to Hamilton, since she was "concerned with position" and "fashionable rather than intellectual," she was more or less forced to go along with the changing conventions, and with the fashion, making her perhaps living more in the present than her husband.<sup>82</sup>

Yet, even if she went along with the fashion, about Lady Hamilton still the same claims can be made as have been made about Hamilton; using her freedom of speech she seems to have been more a Regency than a Victorian woman. One of the first things which was said about her in Graves' biography is that she was truthful. But she was not only truthful in a ladylike manner, she spoke her mind very clearly, stating before the marriage that she would not become patient Griselda, and writing cross and bitter letters which was not very Victorian; women and certainly higher-class Victorian ladies were supposed to be friendly and patient and motherly, and occupy themselves with beautiful things such as literature and poetry and music.<sup>83</sup>

Lady Hamilton may have liked music using, in 1837, a musical metaphor; having been fearful that Hamilton would be jealous of her "great attachment" to her mother, although according to Mrs. Bayly it could "never interfere with her love for her husband; it will cement it, should such a material be wanting," she said that the three of them were "united by one chord, when that chord is touched it sounds a unison perfectly in tune." It is also known that she did like poetry, looking together at the *Evening Star* in 1832 they talked about "the lore Of Poets old", but for the rest

<sup>80</sup> [De Vere, 1897, p. 41]

<sup>81</sup> [Graves, 1889, p. 237]

<sup>82</sup> See p. 168, p. 173, p. 152.

<sup>83</sup> See p. 151. The three female honorary members of the Royal Irish Academy were Maria Edgeworth and Caroline Herschel (1750-1848), both unmarried; Mrs. Somerville (1781-1867) was, rather unusually, supported by her second husband. All three were actually ante-Victorian women.



Lady Hamilton did not, or in any case not completely, live up to the Victorian expectations; it was assumed earlier that she may even have had a more technical mind.<sup>84</sup> That can perhaps also be seen through their children; all three of them seem to have had an aptitude for mathematics or physics: William Edwin was trained as an engineer, Archibald galvanically connected the Observatory's transit and dome clocks and did experiments about "the earth as a conducting body," and Helen Eliza "helped" her father "with calculations" and apparently liked mathematical puzzles.

Lady Hamilton knew that her husband approved of her speaking her mind clearly; she had said to Hamilton that she preferred Eliza's poems to his poems yet he wanted to marry her, he was even proud of her. But as well as Hamilton still having been a man of his time and not 'emancipated' in any way, also Lady Hamilton was a woman of her time; despite her speaking freely, she apparently could or dared not say anything she wanted; as was shown earlier, she did become depressed after, as was reasonably assumed, having become trapped in her Victorian role as the happy, easy-to-fit-in yet able-to-achieve-anything housewife. Like her husband, even if she followed Victorian fashion and perhaps tried to adapt to Victorian customs, something Hamilton seems to have almost refused to do, also she seems to have belonged more to the Regency than to the Victorian period, making the Hamiltons in mind and manners more a Regency than a Victorian couple.<sup>85</sup>

Thus assuming that the Hamiltons were not very willing to adapt to all the social changes, it is very likely that also Lady Hamilton saw no objections to Hamilton's drinking at dinners, she even may have even been drinking alcohol herself since it was widely accepted during the Regency period. And being often ill, she will have used the medicines of their times which included for instance laudanum, "a tincture of opium mixed with wine or water. Laudanum, called the 'aspirin of the nineteenth century', was widely used in Victorian households as a painkiller, recommended for a broad range of ailments including cough, diarrhea, rheumatism, 'women's troubles', cardiac disease and even delirium tremens."<sup>86</sup> They had always been used to alcohol, and Graves indeed never writes anything even remotely indicating that Lady Hamilton had a problem with her husband's drinking. Although it can be assumed that his bad reputation did influence her, and that she may have been thankful for the counsels, hoping that that would help the gossip to subside.

### Temperance and abstainers

While in Hamilton's youth drinking much at dinners thus was still completely customary, around the 1850s the view on alcohol had changed substantially already;

<sup>84</sup> See p. 185, p. 141, p. 182. That Lady Hamilton was not generally very literary seems to be apparent from Graves' disdain for her, see p. 483. The idea that Lady Hamilton may have had a more technical mind can perhaps be corroborated further by Hamilton's reaction to Lord Northampton's remark in 1836 about mothers showing their children a flower or a shell, therewith influencing their future interests; Hamilton remarked that "This remark was applauded, and I thought of Pinkie and you." See p. 184. It is of course not certain, but very easy to imagine, that his happy recollections of such scenes included explanations she gave about the flower or the shell instead of just showing their sheer beauty; Hamilton knew the names of very many flowers, and walking together in the garden so often, she will have known them too.

<sup>85</sup> See p. 232, p. 325, p. 214, p. 265, p. 389.

<sup>86</sup> Diniejko, A. (2002), Victorian Drug Use. *The Victorian Web*. [www.victorianweb.org/victorian/science/addiction/addiction2.html](http://www.victorianweb.org/victorian/science/addiction/addiction2.html) [Accessed 08 Jun 2015].

perhaps not so much among Hamilton's friends as can be seen from Airy's "rally" in 1848,<sup>87</sup> but certainly in society as a whole. The opinions on the use of alcohol seem to have been very polarized, and a clear view on the opposite opinions about alcohol users and abstainers can be read on the first page of the 1853 *The Abstainer's Journal*,<sup>88</sup> published by the Scottish Temperance League only five years after Hamilton's visit to Parsonstown; it may be assumed to also describe the opinions in Ireland.

Under the heading "It Moves" it is written: "Looking around on the aspects of society, and considering the present state of public opinion, total abstainers cannot but perceive much ground for congratulation. In every direction they are struck with signs of progress. The sullen gloom of night has given place successively to the grey of twilight, and the better streaks of dawn. Time works unlooked-for change; and he who can bide with patient faith its turns, shall find his occasion and also his reward. This the old tried friends of abstinence have found. Through good report and through bad, amid apathy and desertion, standing firm, they occupy now a vantage of which they may not unlawfully be proud. The time was when, as many remember, abstinence as a cause was 'nowhere'. An abstainer was a thing useful as the butt of an evening, the festive party, or dinner table. On him all lavish wit and ponderous dullness might discharge their shafts. There were strange doubts and suspicions concerning him among the stereotyped; and in the easy jog-trot circles of society, as well as in the starched, sensitive, and highly self-conscious regions of the same, he was reckoned a man rather unsafe. If not quite a revolutionist and heretic in disguise, he was at least 'something'. Or if obviously a most harmless person, then he was crotchety and peculiar – in fact, an 'extreme' man – extreme – an epithet deemed enough to quench any mortal; every man being extreme, in the vocabulary of certain, who happens to stand at the circumference of that little circle of things and thoughts which is their own, and 'the golden mean', signifying, in exact English, the position occupied by them. The time was when the imaginary type of an abstainer was a man unwashed, unkempt, with leathern apron or fustian coat, speaking very bad grammar, and in a strong provincial brogue – denouncing things in general, and prepared clearly to abolish the world at large; or when his beau ideal was found in the 'reformed drunkard', driven like ship in distress, to the desperate refuge of the pledge, and telling, it may be, up and down, how he once starved his children and beat his wife."<sup>89</sup>

It is hard to imagine Hamilton making fun of, or looking down on, someone in this way, but according to Graves, in Parsonstown Airy 'rallied him' to take a glass of champagne "with expressions that made him ashamed of not being able to control his enjoyment of a pleasure which he did not believe to be a forbidden one." This does completely fit in with the descriptions of how abstainers were looked upon, and if Graves was right, Hamilton perhaps was ashamed after all; having such a reputation was probably hardly better than the alcoholic reputation he was trying to get rid of. But it seems just as likely that Graves' 1880s interpretation of Hamilton's feelings was influenced by knowing how abstainers in the late 1840s were looked upon.

<sup>87</sup> Among many friends and acquaintances of Hamilton it was, in any case in 1846, still customary to drink alcohol at dinners or in company, as can be inferred from Hamilton's asking, during his two-year period of abstinence, 'permission to pledge' Lord Heytesbury "in water" at dinner, see p. 461.

<sup>88</sup> *The Abstainer's Journal*. January, 1853. Miscellaneous Contributions. It Moves. <https://archive.org/details/abstainersjourna00scot>.

<sup>89</sup> To take 'the pledge' is, according to the *Oxford Dictionary*, "a solemn undertaking to abstain from alcohol."

### Only when self-imposed

It is of course not known whether or not Hamilton was ashamed to be seen as a teetotaler in such a derogatory way, yet it can be argued that it is nowhere recognizable in his letters. He consciously had not vowed for abstinence, but also thereof his motives are unknown although it seems to indicate that he did not have in mind to become an abstainer for life. It was surmised earlier that his main motive was to make it impossible to blame it on the alcohol if he would suffer from another “attack” such as the one at the meeting of the Geological Society, and not having had one in more than two years he perhaps did not expect anymore to have one again.

Another possibility could be that it was not so much his alcoholic image he was concerned about, he had to be reminded of that both in 1846 and between 1851 and 1854, but that it was the violence of which he had been ashamed; that does not suit someone who sees himself as a romantic. And it is known that he did care about that image; he mentioned in 1830 to Lady Campbell that he hoped that his poems would help show that he was not “quite a harsh and rugged being, nor quite insensible to feelings of gentleness and beauty,” and in 1856, according to Hankins “in apparent jest but with more than a hint of seriousness,” he wrote to Agnes Nichol that he was “most anxious that in Dublin I should be looked upon as a perfectly prosaic person, with not a bit of the romantic about him.” Regarding himself as a man with deep feelings and passions he probably also saw himself, and not without good reasons since he had always been able to keep it under control, as being able to live a full life in the sense of not abstaining from anything just out of fear of being unable to handle it; as being able to fully “enjoy the pleasures of the table” as he called it.

Considering the various possibilities, it actually seems most likely that Hamilton did mind the violence indeed, that he had been afraid of a new attack, but that he did not have the by Graves suggested considerations about the alcohol at all, and thus also did not feel ashamed. He saw nothing wrong in drinking alcohol and could not know what science and medicine would discover later about why exactly drinking alcohol can be unhealthy; the warnings in his days mostly concerned “losing the control over the propensity” and becoming a real alcoholic with all its bad consequences in daily life. Thereby taking into account that his goal was not to become very old but to discover beautiful mathematics, he will have seen no reason whatsoever to stop an enjoyable and, as regards the sipping of porter, in his eyes profitable habit.

In conclusion, Hamilton had been used to drinking alcohol since his youth; he had no principled objection against it. He had always been able to change his behaviour if he thought that was necessary; without vowing for abstinence he did become a “water-drinker” after Charles Graves’ counsel. It can be surmised that he refused to change his behaviour just in order to follow social conventions; as Graves had mentioned, a change in his habits could “only be self-imposed.” The great changes in society, in the context of this essay the changing social conventions which made Hamilton look like a hopeless old-fashioned romantic, who allowed his non-standard-Victorian wife to stay away from home for some lengthy periods of time making him look like a husband without control, and the changing views on the use of alcohol which made him look like an alcoholic, thus seem to have been the largest reasons for the continuing gossip.<sup>90</sup>

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<sup>90</sup> See p. 416, p. 420, p. 467, p. 318, p. 418, p. 421.

## Judgements

Being judged in a changing society held even more for Lady Hamilton. The Victorian idea of the perfect woman was so strong that she was not only judged incompetent by Graves, but apparently also by other contemporaries. This can for instance be concluded from one of the remarks of Mrs. O'Regan, Hamilton's granddaughter-in-law, which can be read in Wayman's book about Dunsink Observatory. She recalls that her husband was harshly critical about Lady Hamilton; "he said she didn't take enough trouble to see that he had proper food and that too many bottles of porter were left about as an easy way of combatting the strain of long hours of work without food. The temptation to take too much drink was in the end more than he could fight against. I have since wondered if his father who married Helen, Sir William's daughter, had this information from her."

Several remarks can be made about O'Regan Jr.'s opinion of his grandmother. First, in his wife's last sentence she openly wonders where the information about Hamilton drinking too much came from; she did not tell this story as an absolute truth. John O'Regan Jr. lost his mother some weeks after he was born; he had thus neither known his mother, nor his grandparents, and he was an only child, which means that all information he had came from his father and from the stories told in Dublin. And also Mrs. Phoebe O'Regan, who married him when she was twenty-five while he was forty-two, did not know the persons involved except Archibald; her father-in-law died when she was eleven. But she had known Archibald well; if he had been telling such stories she would not have doubted where they came from.

Second, it is known that O'Regan Jr. was, as can be seen from the story told by Mary Smith Baird, in any case during some undefined period a teetotaler; having been young deep in the Victorian era he will not have had the ante-Victorian attitude towards alcohol which Hamilton had. Furthermore, it is not known how much father and son O'Regan talked about his grandparents, while what John O'Regan Jr. had understood may have been coloured further by reading about it; when he was fifteen the second volume of Graves' biography was published, describing a "crisis" of a marriage and containing the long passages of announced alcoholic doom while introducing the event at the Geological Society, thereby further ruining Lady Hamilton's already bad reputation.

Third, Graves never wrote, and also was very clearly never of the opinion, that Hamilton's habit of drinking alcohol was "in the end more than he could fight against," yet John O'Regan Jr.'s opinion about the reason that Hamilton drank porter, that is, Lady Hamilton's shortcomings as a wife for Hamilton, does strikingly resemble Graves' opinion, and most likely also the gossip in Dublin. Assuming that O'Regan Jr. shared his opinions with his father, it is a possibility that O'Regan Sr. adopted the common Dublin opinions about Lady Hamilton since he does not seem to have been an "intimate friend" of Hamilton who, in Graves' biography, only mentioned John O'Regan Sr.'s name when he wrote to De Morgan that 'Archy was his pet.' It is therefore entirely possible that O'Regan Sr., knowing Hamilton's reputation in Dublin, also blamed Lady Hamilton without knowing her well.<sup>91</sup>

<sup>91</sup> [Wayman, 1987, p. 303], p. 356, [Graves, 1889, p. 514], p. 28. Mrs. O'Regan also mentions how "Miss Emmy Porter, who was so kind to Uncle Archie, also condemned [Lady Hamilton] for allowing him to stay in lodgings in Dublin when he was attending TCD, instead of insisting upon his living with friends who would have looked after him and vetted the companions he made."

Fourth, perhaps O'Regan Sr. and Graves talked with each other about Hamilton. That would in any case not be impossible; it is known that when Helen Eliza was dying after having given birth Graves wrote a desperate letter to O'Regan Sr. suggesting a blood transfusion, they apparently knew each other well enough to allow for such a letter. If there were such conversations, they will doubtlessly have had Hamilton's bad reputation as a subject, and if O'Regan's opinion was influenced by Graves that could indicate that "more than he could fight against" only meant that to their great sadness Hamilton did not become a teetotaler, not that he 'lost the battle against alcohol' in the sense that he was drunk the rest of his life, since that was not Graves' opinion. Graves saw Hamilton's "propensity" to drink alcohol, the regularity of his drinking and his refusing to abstain as the real problem; he mentioned explicitly that the second counsel had not been without good effect, that the gossip was exaggerated, and that Hamilton was especially temperate at home.

Hamilton's temperateness at home can also be corroborated by the story that Helen Eliza kept "relays of candles" for Hamilton when he worked after sunset; she would have known as no-one else if he was drinking too much then. But neither in her loving remark about his youthful spirit while being on holiday with him on the outside car, nor in what she said about him when she stood next to his deathbed, anything can be found that would even remotely hint at alcoholism. Moreover, none of the children seems ever to have said anything about blaming their mother for any unhealthy behaviour of their father. William Edwin told his stories showing Hamilton's eccentricity and does not seem to have believed that anyone could influence him. Archibald wrote, in January 1866, to his mother if she wanted to join him in Clogher, which he probably would not have done if he would have been very angry; she apparently did not want to come because of her failing health. Of Helen Eliza nothing is known regarding her thoughts about her mother; yet Wayman mentions an unpublished but still extant letter written in 1866 to her future sister-in-law. If she would have written anything about that Wayman, who in his book mentions to have followed Hankins' opinion on the alcohol issue, would not have needed to do that.

Before Graves published, in 1885, the antenuptial letters Hamilton wrote to Helen Bayly, no-one knew how hard he had tried to persuade her to marry him, trying to convince her that her weak health and her "not being brilliant" would not be a problem at all, and no-one knew how doubtful she had been, apart from their closest family. But when Graves did publish these letters, which could have put things into some perspective, they were wrapped in the dark veils of the biography. He introduced the marriage as a "crisis", and used his veils to show that Hamilton's bad reputation was not his fault but hers, as was probably the overall opinion.

Indeed, whether or not Graves and her grandson were right about her after all, in her days she never even stood a chance. In the end, the only person who said anything in Lady Hamilton's defense was her granddaughter-in-law Mrs. O'Regan when she remarked, after mentioning Lady Hamilton's bitter letter about De Vere's servants, that "it may not have been very easy to deal with the household, the eminent guests, their servants, *and* her genius of a husband. It was common knowledge that if he was immersed in a calculation he would sit up all night till he had solved it."<sup>92</sup>

[Wayman, 1987, p. 303], p. 22. This again evokes the feeling that Lady Hamilton could not do much good in Dublin, and that Hamilton was seen as being totally unable to take care of himself.

<sup>92</sup> [Hankins, 1980, p. 382], p. 346, p. 245, p. 262, p. 264, p. 20, p. 444, p. 6

## 10.7 Always a mathematician

Hamilton's almost obsessive writing of the *Elements*, not trusting the future because of his gout attacks and therefore desperately trying to finish his book before he would die, must have produced the ultimate blow to his reputation. Although he had given beautiful lectures on astronomy, he had never been a very inspired practical astronomer, and he used his enormous powers for mathematics, not for astronomy. Further taking his love for the Observatory into account, it is easy to surmise that he saw it as his beautiful house giving him the solitude to work as concentrated as possible, instead of as a place which should be vibrant with astronomical study, discoveries and progress.

But not only did he claim the Observatory; a further aggravating circumstance was the fact that hardly anyone understood what he was doing while at the same time many people advised him to shorten the work, publish and carry on with a third book, advice he did not listen to, fearing that a third book would never be written at all. It can be imagined that this was not very good in the eyes of his fellow-astronomers; a beautiful Observatory, occupied by a hermit-like working mathematician making no astronomical discoveries at all, and no possibility to replace him for a more involved astronomer.

The immediate cause for these contemplations is a remarkable letter given by Wayman. The letter was written in January 1866, a few months after Hamilton's death, by James South (1785-1867), a "prominent astronomer from London, a founder member and at that time President of the Astronomical Society of London," and directed to Michael Faraday; it was written in connection to Hamilton and a lens of which Graves writes: "the celebrated twelve-inch achromatic object-glass was, in 1863, presented by Sir James South to the University of Dublin, on the appropriate occasion of the installation of the Earl of Rosse as Chancellor."

Hamilton had known South for more than thirty years although he does not seem to have corresponded much with him; South had an observatory in Kensington and in 1831 Hamilton had written to Grace: "Has [Cousin Arthur] told you that I have had an invitation from Sir James South, to go in a few weeks to London, to see his great Equatorial put up by the Duke of Wellington, and that Adare and I intend to do so?" The visit took place in 1832, and afterwards Hamilton wrote to Maria Edgeworth: "We drank the health of the Bishop of Cloyne and other scientific contemporaries, but parted *sober*, whatever you may suspect to the contrary."<sup>93</sup>

About South and the lens Wayman writes: "In 1829 [...] James South, destined to be knighted in 1831, determined to equip his new observatory with one of the two largest lenses in existence, made by Cauchoix [(1776-1845)] of Paris. South was formerly a medical practitioner; he had married into a wealthy family and he endeavoured to establish an outstanding private observatory in Kensington. [...] South secured the lens at a reputed cost of £1000 or £1200.<sup>94</sup> He returned to London with the lens in his private carriage 'smuggled' out of France. His plans for a telescope at his grandiose South Kensington observatory [...] went ahead. Being of a chauvinistic

<sup>93</sup> [Wayman, 1987, pp. 92-96], [Graves, 1882, p. 308], [Graves, 1882, p. 455], [Graves, 1882, p. 551]. Maria Edgeworth seems to have favoured abstemiousness.

<sup>94</sup> According to the website *Measuring Worth*, [www.measuringworth.com](http://www.measuringworth.com), in 2014 an 1829 £1000 commodity would have as its income value £1,497,000.



persuasion, South required an ‘English’ mounting for his telescope, against certain advice that he had received, and he had construction work done by Troughton [(1753-1835)] and Simms [(1793-1860)]. [...] The Troughton design of the telescope, however, did not give satisfaction to James South, nor did the design of the dome, specially produced by the great railway and ship engineer Isambard Brunel [(1806-1859)]. [...]

“The opening ceremony for South’s telescope was cancelled because the dome would not revolve satisfactorily and because the telescope was not acceptable [...]. Legal proceedings were entered into when South would not pay Troughton’s bill. Expert advice from George Airy [...] was called and eventually, in December 1834, the case went against South. In 1836, in what must have been an extraordinary scene, he broke up the telescope, saving the lens, and in a scurrilous poster advertised the pieces, along with a bust of Airy, for sale as worthless remnants ‘specimens of the present state of instrument making in England in the Nineteenth Century’. [Johan] Dreyer [(1852-1926)] records that “fortunately he did not destroy the object glass, but presented it to the University of Dublin in 1863, when Lord Rosse was installed as Chancellor of the University. A few years later it was mounted as an equatorial at Dunsink.” But Wayman adds: “In correspondence with Romney Robinson of Armagh, [South] apparently determined that his gift to Trinity College should be held in abeyance until a successor to Hamilton were appointed.”<sup>95</sup>

Before giving South’s 1866 letter to Faraday Wayman remarks: “over ninety years of age and irascible to the last, South does not heed customary courtesy to those who have departed this Earth,” and then gives the letter. “Lord Rosse and Dr Robinson and others are, I dare say, surprised that they do not hear from me concerning the mounting of my large Object Glass, which on the persuasion of Dr Robinson, I gave the Dublin University nearly 3 years ago, and which I fear the Fellows of Trinity College will not mount in the English manner as I, aye and as Robinson gave me reason to suppose they would, and which if he had not done, no consideration upon Earth, should have induced me to let it see Dublin – indeed during the last month, [Wayman inserts: to it] I refer very much of my increased illness, and discomfort.

“Dr Robinson in one of his unanswered letters which now lie before me, on the table, writes thus: I am now very sorry I took any part in inducing you to give the object Glass to them; but I don’t think they will be very likely to mount it till they get some new and better men among them (the Fellows). Lord Rosse writes: It is strange that there should be no one competent for the professorship in Ireland but Stoney [Wayman remarks: Bindon Blood Stoney, 1828-1909, engineer and astronomer]. Now Lord Rosse is Chancellor of the University – the Fact is to keep the Object from the certainty [Wayman remarks: sic] of being broken by Hamilton in his DRUNKENNESS [Wayman remarks: South’s capitals], the Fellows were obliged to lock it and all its apparatus, which in my confidence I gave them also, up. But I will say no more

<sup>95</sup> See pp. 52-55 of Dreyer, J.L.E., Turner, H.H. (1923) in *History of the Royal Astronomical Society 1820-1920*. London: Royal Astronomical Society. <https://archive.org/details/historyofroyalaya/la00dreyuoft>. After telling the story of how South “smashed the whole mounting to pieces,” Dreyer gives some anecdotes about South as an “account of his vagaries” and remarks: “Of course, his contemporaries knew when he was not to be taken seriously.” One of the anecdotes tells how “South was in the habit of strolling up and down his garden in the evening, shouting his grievances at the top of his voice to some friend, while people from the neighbourhood were regularly enjoying themselves on the other side of the wall by listening to his ravings.”



about it, “Tanquam animus memori horret, lustaque refugit [With luctuque instead of lustaque: As if the mind shudders at the recollection, and shrinks back from the grief].”<sup>96</sup>

In the light of this essay the remark South makes about Hamilton’s “drunkenness” must be commented on. From Wayman’s and Dreyer’s aforementioned descriptions it can be seen that South was not a very kind man, to put it mildly. And Wayman comments in a note at the end of the chapter: “This allegation of Hamilton’s intemperance is curious, even coming from South. It implies either that the view expressed in Chapter Four [of Wayman’s book], echoing Hankins’ opinion, that Hamilton’s insobriety was not serious, is erroneous, or that some astronomers, being practical men, possibly including Lord Rosse and Romney Robinson, were unjustly censorious of Hamilton even after his death, presumably after his inattention to practical astronomy so offended them. It is ironic that Hamilton, whose talents equipped him eminently to do so, took no part in the prediction and discovery of the planet Neptune, for this would have silenced such criticism, whether or not his insobriety were serious.”<sup>97</sup>

### Robinson’s expectations

Wayman thus suggests that Lord Rosse and Robinson may have felt offended by Hamilton’s inattention to practical astronomy, something which is not really recognizable in Graves’ biography. Of Lord Rosse nothing can be said just using the biography, but since William Edwin dedicated, “with permission”, the *Elements of Quaternions* to him, it will not have been so bad that William Edwin knew about offended feelings, and Lord Rosse did not refuse the honour.

About Robinson something can be said though. Robinson doubtlessly had expected Hamilton to work with him; in 1827 he had invited Hamilton to Armagh to instruct him about how to use the instruments. The then still very young Hamilton left early to travel with Nimmo although Robinson wanted him to stay, yet he was far from being angry; he lent Hamilton “a fine Circle” to take with him, and allowed one of his servants to go and work for Hamilton. And thereafter, in those early years at the Observatory, Hamilton corresponded quite intensely with Robinson on matters of astronomy, and again paid him a short visit in 1828.<sup>98</sup>

Robinson tried hard to get Hamilton on his way; in July 1829 he wrote to Hamilton: “I have heard from Beaufort that South is renouncing astronomy, and intends to sell his instruments. I have written to him to tell me at what price he would dispose of his Equatorial [. . .]; and on getting his answer shall I write to the Provost to get it for you? The telescope is one of the best in the world, and the machine also capital. It will perhaps come better from me than you; as, though the Board are liberal enough, it may be well that you should not seem to press too much on them.”

Hamilton declined Robinson’s offer: “I am sorry to learn that South is renouncing astronomy, but am much indebted to you for thinking of getting me his Equatorial. However, as Sharpe has taken so much trouble already in preparing his new

<sup>96</sup> [Wayman, 1987, pp. 95-96]

<sup>97</sup> [Wayman, 1987, p. 125]. Neptune was discovered in 1846 by Johann Gottfried Galle (1812-1910), based on calculations regarding deviations in Uranus’ orbit by Urbain Le Verrier (1811-1877). Galle found Neptune very close to where Le Verrier had predicted it to be.

<sup>98</sup> See p. 66, footnote 17 on p. 162, [Graves, 1882, p. 288], [Graves, 1882, p. 300].

Equatorial stand and clock-work machinery for my dome telescope, I do not feel myself at liberty to break off the arrangements with him, and therefore fear that I must miss the opportunity, even if, which I do not think likely, the Board would be willing to go to the expense. If, however, they should ever provide me with a better telescope, I understand from Sharpe that it can be adapted to his machine; but he is going immediately to Armagh to show the model to yourself, being naturally desirous to submit it to your inspection."

It all sounds fine, but already the next year, during his 1830 visit to Robinson's Observatory at Armagh, Catherine came to visit him there, and Hamilton broke the wires of the eyepiece. No-one knew that Hamilton had been in love with her since according to Hankins he only revealed her name to Lady Campbell and to her relatives, and people can therefore have simply concluded that the romantic he was, he had been so impressed by a beautiful lady that he broke the wires. Or even, that he was highly intelligent but very clumsy. It is not known how Robinson reacted to it but not only Robinson will have known about it; the wires had to be repaired by someone, or new ones had to be ordered. Hamilton's later reputation as a not very practical astronomer may easily have been illustrated and enlarged by such a story.

In the beginning of 1831 Hamilton and Robinson were still corresponding about astronomical subjects, but halfway through 1831 Hamilton wrote to Robinson: "I write to mention to you that I have some prospect of being permitted to exchange the Professorship of Astronomy for that of Mathematics, and some thought of availing myself of the permission." After describing the practical consequences he very honestly concluded the letter: "My tastes, as you know, are decidedly mathematical rather than physical, and I dislike observing; which circumstance makes me rather unfit for holding an Observatory as a contemporary and compatriot of you. [...] My only ground for hesitation at all is the regret that I feel in giving up a residence so pleasant for my sisters; and perhaps this may, in the end, outweigh the contrary reasons."

Robinson was far from surprised: "Your course appears to me so clear that there can be no hesitation. As a Mathematician you will probably have no equal in Britain, as an Astronomer some superiors; for you certainly have not the practical enthusiasm which is essential to make one sustain the uniform progress of observing. I was well aware that you are not very fond of observing, but you know you have that in common with Encke (who hates it), Airy, and Pond [(1767-1836)] (now never observing). But at the same time it is not necessary for a man to observe, himself; he may render, as Encke, most important services to Science by his calculations, and make his assistants observe for him. [...] I mention this, that if any events should make it necessary for you to remain as you are, you may not imagine yourself useless because you are not much of an observer, for, even so, you are likely to be invaluable as a calculator."<sup>99</sup>

Adare was at that time living at the Observatory being tutored by Hamilton and Graves writes: "Lord Dunraven [Adare's father] and Lord Adare set him at ease by declaring that he should carry his pupil with him wherever he went; and his friend Lady Campbell, while sympathising in the loss which would be incurred by himself and his sisters in quitting that "lovely place", the Observatory, strengthens him by telling of her delight at the prospect "of your devoting yourself to your pure

<sup>99</sup> [Graves, 1882, p. 335], p. 88, [Graves, 1882, pp. 431-432]

mathematics.”” But the Board saw various statutory difficulties, and in June Hamilton wrote to Robinson: “I continue to leave it to the Board to decide whether I shall be Professor of Astronomy or Mathematics, and they seem still to prefer the former. My own preference of the abstract and theoretical I have taken care to state, and the only terms on which I could like the Observatory would be the feeling myself at perfect liberty to pursue mathematical investigation; which liberty, however, they appear desirous that I should have.”

Graves comments: “It is clear from this letter, and the fact should not be lost sight of, that he honourably made it a condition of his continuing at the Observatory, that he should be free to carry on as his first object his mathematical researches, and that the responsibility for his so continuing as a Mathematician rather than an Astronomer rested with the University authorities. The following letter from the Provost [Bartholomew Lloyd] informed him of the ultimate decision: – “I succeeded only to a certain extent in carrying the Resolution respecting your Professorship. The Resolution passed unanimously in the following words: – “That the stipend afforded for the support of the Professorship of Astronomy, including the pay of Assistant [£100] and Gardener [£20] shall be raised to the amount of £700 a-year, the Professor engaging to lecture twice a-week during the whole of Michaelmas Term, and not in future to take private pupils.” I beg to congratulate you on this improvement, though short of what I proposed.””

Robinson clearly having expected Hamilton to engage in astronomical calculations, and hoping for theoretical discoveries, may have been very disappointed. Hamilton had already hardly used his powers for astronomy, and now he was even officially granted to give it all to mathematics. Their correspondence became less and less frequent after 1832, or Graves did not give letters anymore. Still, in 1838 Hamilton and Robinson did astronomical work together, “procuring a determination of the longitude of the Observatories of Armagh and Dublin, respectively, by the method of Chronometers. [...] On the 10th of December Hamilton read a Paper by Dr. Robinson giving the results of the process.” And in May 1839 “the two astronomers engaged in taking a series of observations for the same purpose, by rocket-signals;” they determined “the difference of longitude between the Observatories of Dublin and of Armagh by rockets sent up from Dunsink and from Sliebh Gullion, a mountain eighteen miles from Armagh. Numerous letters remain which passed during this process, between Dr. Robinson, Hamilton, and Captain (afterwards Sir Thomas) Larcom. Hamilton, assisted by Mr. Thompson, superintended the operations at Dunsink; they were often obstructed by unsuitable weather, but the result was satisfactory.”<sup>100</sup>

In December 1839 Robinson lost his wife, and Hamilton wrote him a letter of condolence, inviting him to visit the Observatory as long as he pleased, and help him “with some hints” to make Dunsink Observatory more like that of Armagh. Hamilton thus seems to have been, every now and then, full of good intentions, but in May 1843 he wrote to Adare that, following a request from the Board to annually publish a report which “would prove satisfactory to the public, and show that, in an exacting age, we (the College) were holding our place in the scientific world,” he was afraid that he would have to give up pure mathematics and “devote myself to practical astronomy, to please the public.”<sup>101</sup>

<sup>100</sup> [Graves, 1882, p. 434], [Graves, 1885, p. 281], [Graves, 1885, pp. 298-299]

<sup>101</sup> [Graves, 1885, p. 307], p. 205, p. 401

Adare's letters are not given by Graves, but he seems to have been angry at the thought that Hamilton would be hampered by the Board in his mathematical pursuits. In July Hamilton wrote to Adare: "it would give me great pleasure to converse freely with Dr. Robinson on any matter connected with this Observatory, or on anything which might enable me to be of more use to Astronomy. Indeed he ought to know it by this time, and I am sure that he does. Besides it would really be a satisfaction to me to understand better than I do the recent movement, so far as it depends on other persons – and to know what that mysterious personage, the "Public" does wish or expect, if it be not what I have moved your ire by merely mentioning. You knew that the Board, by inducing me to promise not to offer myself as a candidate for Fellowship without their consent, have placed me, or persuaded me to place myself, in a very different position from that of the persons to whom I suppose you allude, as obtaining whatever they please by asking for it. They affect to consider me as an extern, after putting me in a position which gives them the only excuse for doing so. I am not a good beggar, but you may possibly remember – at all events, I do – my telling you, soon after your first coming here, that if the Board had complied with some applications which I thought reasonable – as, for instance, for books – I should probably have become very fond of practical astronomy; and your replying that you were in that case glad they had not done what I desired. But all this about the Board, which I write in haste, is not at all designed for the public eye, or indeed for any but yours. They have seemed of late to wish to be personally attentive to me, and I made a formal statement to them last week that additional assistance was necessary in order to do justice to the Observatory. Meanwhile I think you, very naturally, under-rate what has been actually done here in my time. Of course I must expect that such will be the case, till I shall have the means of publishing in a satisfactory way the observations which have been accumulating."

Hamilton sounds as if he intended to finally make Dunsink an active Observatory. But he was not helped by the Board; the additional assistance Hamilton asked for was never assigned. Wayman suggests that the Board actually knew what they had done; that they had acted "in the full knowledge that they were appointing a potential genius rather than a practical observatory director," but had "assumed that with one practical assistant, Charles Thompson, to make observations and to carry out reductions, there should be no problem in maintaining sufficient progress." And "although the Board fully supported Hamilton in its annual meetings, as is evident from the entries in the Visitor's Book," they must have known that Hamilton could not keep up with for instance Greenwich where "new assistant staff had been engaged." Wayman concludes: "It must have been considered fortunate indeed that Hamilton, always energetic and active, as well as being scholarly to the highest degree, was making outstanding contributions of quite a different kind."<sup>102</sup>

### Even more mathematics and less astronomy

After Hamilton found the quaternions they became his main focus. In January 1846 Hamilton wrote to Robinson about his intentions to resign the presidency of the Royal Irish Academy: "I can assign very little share, if any, to astronomy itself, as

<sup>102</sup> [Graves, 1885, pp. 412-413], p. 445, [Wayman, 1987, p. 66]. The vast majority of the 'accumulating observations' Hamilton alluded to had been made by Thompson, see p. 181.

distinguished from pure science, among the motives which determined me, a few months ago, to form the resolution of resigning a distinction which was for some time very gratifying to me – the Chair of the Royal Irish Academy. [...] I felt that it was necessary for me to have some quiet time to put my house in order; and in part I wished to arrange my thoughts and papers on my last mathematical speculation, the quaternions. If astronomy, in the more strict and practical sense of the word, shall come in for a good share of the leisure thus secured, I shall the more enjoy it from its so far connecting me with you.”<sup>103</sup>

Hamilton thus suggested yet again that he still could become a more active astronomer, but the quaternions would turn out to be totally time consuming. Although he did correspond on the discovery of Neptune and Adam’s role therein, writing to Whewell in February 1847: “In lecturing before Christmas on Le Verrier’s planet I ventured to use by anticipation the trident as its symbol, having heard from Herschel that the French were only beginning to be aware “what a narrow escape Mr. Neptune had of being born an Englishman.” But I have done far too little for astronomy proper to have the smallest title to give a vote on such a question.”

In July 1848 just having started on the writing of the *Lectures* Catherine wrote the letter which led to their six-week correspondence and thereafter, in August, Hamilton was invited by Lord Rosse to come to Parsonstown; this visit has been described extensively. The fact that Hamilton was invited probably indicates that he then was still regarded as an active astronomer, but after the visit to Parsonstown seriously starting the writing of the *Lectures*, of which he sent a proof of the first sheet to Herschel towards the end of October 1848, Hamilton’s astronomy will have been superseded even further by his mathematics.<sup>104</sup>

### Friendly letters but no more astronomy

But although it was Robinson who had, in earlier years, called Lady Hamilton “an abstract idea”, there seem not to have been real irritations between them; in February 1856 Hamilton wrote to De Vere about Robinson: “At this moment I am detaining the morning postman, who is not bound to wait for letters, but whom I have bribed by promising him a cup of tea in my hall. He has brought me a note from Dr. Robinson, enclosing four stamps in repayment of a recent advance of mine, so if you had sent me stamps for posting your book (which I am very glad that you did not), you would not have been the only Irishman who has done something of this kind. I am rather vexed by receiving these stamps, but suppose that the civil thing is to retain them. I had put the same number of heads on a printer’s packet which came to me by mistake a day or two ago. You will return me Robinson’s note. He is a very pleasant person, to love or to quarrel with. I have known him since I was a child, and we have had our little quarrels now and then.” Graves remarks in a footnote: “What Dr. Robinson at this time thought of Hamilton is shown by a note written by him in reference to something said by Hamilton at a Meeting of Council of the Royal Irish Academy. “Observatory, Armagh, March 8, 1856. – There was not the least occasion for you to suppose I could be hurt by what you said. I know your kind and good heart

<sup>103</sup> [Graves, 1885, pp. 502-503]

<sup>104</sup> [Graves, 1885, p. 535], p. 262, [Graves, 1885, pp. 561-562], p. 277, p. 286. “The narrow escape Mr. Neptune had of being born an Englishman” alludes to Adams as Neptune’s co-discoverer.

too well, and rely too firmly on our old friendship, ever to admit the possibility of your harbouring an unkind thought towards me; and I took [Graves adds: it] as one of the points to which an extempore speaker is occasionally tempted.”

Later that month Hamilton wrote to Robinson: “Within the last few days I have received from Paris a quarto of about 200 pages, almost entirely devoted to the development and application of ray results in physical astronomy – the first part relating to my abstract results in dynamics, and the second being headed, *Thèse d’astronomie. Application de la Méthode de M. Hamilton au Calcul des Perturbations de Jupiter* – by Saturn, Uranus, Neptune and Mars, the Earth, &c. – with long inequalities of all sorts extended to the years of our Lord, 2300, and 2800 – all by Prof. or Monsieur Houel [(1823-1886)], of Alençon – but submitted to Cauchy [(1789-1857)], Duhamel [(1797-1872)], and Delaunay [(1816-1872)], and (as it seems) approved by them. How comfortable to see my abstract results translated into hundredths of seconds sexagesimal! and how odd a feeling it gives to read, in the astronomical department, every now and then, of “l’ellipse de M. Hamilton”! or better still, here and there, without the “M”, “l’ellipse de Hamilton”! for it is the truth, though perhaps scarcely two or three persons in these countries have noticed it, that I assigned, twenty years ago, elliptic orbits for all the planets, essentially distinct in theory, though very little differing in practice, from those so beautifully imagined by Lagrange, and having certain centrobasic and symmetric advantages. ... I remain, in haste, but wishing to consult you on some things astronomical, most faithfully yours.”

As mentioned earlier, in December 1864 Hamilton wrote to Robinson again, inquiring if Robinson could help him with the costs of the printing of the *Elements*, and although Robinson answered that he could not, his reaction to the *Elements* was very complimentary. This was the last correspondence between Hamilton and Robinson given by Graves and perhaps, for someone used to Victorian politeness some slight resentment on Robinson’s side can be found. Yet, from the letters given it cannot easily be concluded that Robinson and Hamilton were ever on a wrong footing.<sup>105</sup>

Therefore, under the assumption that South was right about Robinson, the only thing which can be surmised as regards South’s letter is that Robinson, although he liked Hamilton as a person and judged him an extremely gifted mathematician, still pitied not having worked again with Hamilton as they had done in 1839, firing rockets to measure longitudes, or with any astronomer at such an important observatory as Dunsink, the Armagh and Dunsink Observatories being the oldest ones in Ireland.

But all this still does not explain South’s anger as expressed in the letter to Faraday. Not much seems to be known about South’s stance towards drinking alcohol, yet the remark Hamilton made in 1832, that while visiting South with Adare they had pledged the health of his predecessor Brinkley, then Bishop of Cloyne, but still were sober without explaining why, might indicate that South did not drink alcohol at all. If that is true, the stories which were presumably told about Hamilton breaking the wires of the eyepiece during Catherine’s visit, followed by the gossip after the event at the Geological Society and Hamilton’s after 1848 further worsening alcoholic reputation, may easily have triggered the “irascible” South enough to wait fiercely annoyed for his replacement.

<sup>105</sup> [Graves, 1889, p. 63], [Graves, 1889, p. 67]. For Robinson’s letter see p. 249.



## 10.8 Ruined reputations

The precise way in which Hamilton's ruined reputation was retold until today is not investigated thoroughly here. Yet there is one remarkable coincidence, namely, that in 1898 the Scottish mathematician Alexander Macfarlane came to live in Chatham, Ontario, where also William Edwin lived. Macfarlane was a student of Peter Guthrie Tait; he was secretary of the 'International Association for Promoting the Study of Quaternions and Allied Systems of Mathematics', or the 'Quaternion Society' for short, and from 1909 he was its president. In the beginning of the 1900s Macfarlane was lecturing on famous mathematicians, amongst whom was Hamilton.

Clearly having read Graves' biography, in the lecture about Hamilton, delivered on the 16<sup>th</sup> of April 1901, Macfarlane described Hamilton's early love for Catherine: "The "silent Beauty" was not an abstraction, but a young lady whose brothers were fellow-students of Trinity College. This led to much effusion of poetry; but unfortunately while Hamilton was writing poetry about her another young man was talking prose to her; with the result that Hamilton experienced a disappointment. On account of his self-consciousness, inseparable probably from his genius, he felt the disappointment keenly. He was then known to the professor of astronomy, and walking from the College to the Observatory along the Royal Canal, he was actually tempted to terminate his life in the water."<sup>106</sup>

"The Observatory is [...] a fine home for a poet or a philosopher or a mathematician, and in Hamilton all three were combined. [...] Hamilton possessed the poetic imagination; what he was deficient in was the technique of the poet. [...] Hamilton had a pupil in Lord Adare, the eldest son of the Earl of Dunraven, and it was while visiting Adare Manor that he was introduced to the De Vere family, who lived near by at Curragh Chase. His suit [of Ellen de Vere] was encouraged by the Countess of Dunraven, it was favorably received by both father and mother, he had written many sonnets of which Ellen de Vere was the inspiration, he had discussed with her astronomy, poetry and philosophy; and was on the eve of proposing when he gave up because the young lady incidentally said to him that "she could not live happily anywhere but at Curragh." His action shows the working of a too self-conscious mind, proud of his own intellectual achievements, and too much awed by her long descent. So he failed for the second time; but both of these ladies were friends of his to the last.

"Twice Hamilton chose well but failed; now he made another choice and succeeded. The lady was a Miss Bayly, who visited at the home of her sister near Dunsink hill. The lady had serious misgivings about the state of her health; but the marriage took place. The kind of wife which Hamilton needed was one who could govern him and efficiently supervise all domestic matters; but the wife he chose was, from weakness of body and mind, incapable of doing it. As a consequence, Hamilton worked for the rest of his life under domestic difficulties of no ordinary kind."

After Hamilton thus was described as someone who could not handle his life very well, there follows the most defining paragraph of this lecture, that is, for Hamilton's ultimately ruined reputation: "We have seen how Hamilton gained two optimes, one in classics, the other in physics, the highest possible distinction in his college course;

<sup>106</sup> [Macfarlane, 1916, pp. 37-38]. See for the "silent Beauty" the poem in footnote 42 on p. 72. Macfarlane could not know of course that Catherine had married against her will; that only became apparent when Hankins gave the letters in which Hamilton mentioned that.



how he was appointed professor of astronomy while yet an undergraduate; how he was a scientific chief in the British Association at 27; how he was knighted for his scientific achievements at 30; how he was appointed president of the Royal Irish Academy at 32; how he discovered Quaternions and received a Government pension at 38; can you imagine that this brilliant and successful genius would fall a victim to intemperance? About this time at a dinner of a scientific society in Dublin he lost control of himself, and was so mortified that, on the advice of friends he resolved to abstain totally. This resolution he kept for two years; when happening to be a member of a scientific party at the castle of Lord Rosse, an amateur astronomer then the possessor of the largest telescope in existence, he was taunted for sticking to water, particularly by Airy the Greenwich astronomer. He broke his good resolution, and from that time forward the craving for alcoholic stimulants clung to him. How could Hamilton with all his noble aspirations fall into such a vice? The explanation lay in the want of order which reigned in his home. He had no regular times for his meals; frequently had no regular meals at all, but resorted to the sideboard when hunger compelled him. What more natural in such condition than that he should refresh himself with a quaff of that beverage for which Dublin is famous – porter labelled X<sup>3</sup>? After Hamilton's death the dining-room was found covered with huge piles of manuscript, with convenient walks between the piles; when these literary remains were wheeled out and examined, china plates with the relics of food upon them were found between the sheets of manuscript, plates sufficient in number to furnish a kitchen."

From this lecture it can firstly be seen that, to say it crudely, Graves had succeeded; Lady Hamilton received all the blame, it was all her fault. It is further remarkable how a very large part of the later gossip is present already; next to implying that Hamilton started to drink porter because his wife did not take care of meals, the paragraph also includes the story of the plates between the papers of which Wayman claims that it was "a fabrication, or at any rate a gross exaggeration." Moreover, as also Wayman later suggested, in Macfarlane's lecture the piles of paper were in the dining-room, therewith affecting the whole household instead of just Hamilton's library. Catherine was not yet a major influence then; that only started after Hankins discovered her importance and published his biography in 1980.<sup>107</sup>

### Canadian temperance and again Macfarlane

Under the influence of temperance movements also in Canada alcohol was more or less prohibited from the 1910s until the 1920s, the prohibitions often having started locally from the 1880s. As mentioned, Macfarlane moved to Chatham in 1898, and four years later, on the 17<sup>th</sup> of March 1902, William Edwin died. Macfarlane wrote an article about him in *Science*: 'W. E. Hamilton'. "In Chatham, Ontario, there died a short time ago William Edwin Hamilton, the elder son of Sir W. R. Hamilton, the great Irish mathematician. He gave his father some help in reading the proof sheets of the *Elements of Quaternions*, and his name appears as editor on the title page of the first edition. As the book had been printed off in sheets under the care of his father, his work as editor of the posthumous volume did not amount to much. He had graduated B.A. at Trinity College, Dublin, and had been trained to the profession of civil engineer. The editing finished, he left for the West Indies, located in various parts of

<sup>107</sup> [Macfarlane, 1916, pp. 45-46], p. 359, p. 358

the New World, and finally settled down in Chatham, then the center of immigration to the peninsula of Ontario. He was employed on the newspaper of the town, and through drinking habits fell into very wretched circumstances. When I first saw him, underclothes were conspicuous by their absence, and his sleeping place was said to be the loft of a livery stable. By taking the gold cure<sup>108</sup> he was able to master his alcoholic enemy; but no cure could recall or even make up for the years he had wasted. Every Saturday he might be seen distributing a leaflet of a newspaper called the *Market Guide*, which contained advertisements, a list of prices of farm produce, a few witticisms, and occasionally some doggerel verses which he called poetry. In his later years he lived poor but respectable. He loved to talk about the members of that brilliant society in which his father moved, and he had not a few friends who esteemed him, if not for his own, at least for his father's sake. He was about sixty years of age, and his death was very sudden."<sup>109</sup>

Macfarlane's article is not very kind to say the least; although he acknowledges that William Edwin was cured from his addiction and in his later years lived respectable, the sentence about William Edwin's underclothes and his sleeping place is unnecessarily insulting, especially when knowing that this was written in the also then widely read journal *Science*. And since in 1916 Macfarlane's lectures, including the lecture about Hamilton, were published as a book,<sup>110</sup> it will thereafter have become widely accepted that Hamilton had fallen "victim to intemperance", an idea not too strange when already knowing that his son had been addicted and had wasted years of his life.

### A shuffling old man or a high-principled journalist

In the first chapters of this essay Hamilton's life has been described without almost any reference to alcohol. That was done on purpose; while reading the story of his actually very steady and highly laborious life it becomes clear that there is not any conspicuous moment or inexplicable train of events changing the course of his life in such a way that alcohol should be brought in to explain them. If Graves would have decided not to write about the event at the Geological Society, the gossip and the counsels, no-one would have been able to derive it from the in his biography described course of Hamilton's life.

That is entirely different with William Edwin. After Hamilton's death having lived wealthily he often changed location, had various mostly short lasting jobs, lost his *Planet* editorship in some undefined way and ended apparently poor. But also, having been, in any case seemingly, a rather egocentric person in his younger years, according to his friend Colles and the 1902 *Planet* editorial he later became a very honest and "kindly good-natured old Irishman", and according to Wayman "a struggling but high-principled journalist".<sup>111</sup> It thus seems very obvious that something happened which cannot be found in his *Peeps*, written before 1895 and therefore more than seven years before his death.

<sup>108</sup> See p. 21. For the first local temperance organizations in Chatham see p. 456.

<sup>109</sup> Macfarlane, A. (1902), W. E. Hamilton. *Science*, New Series, Volume XV (389): 950. <https://babel.hathitrust.org/cgi/pt?id=uc1.b000574336>.

<sup>110</sup> MacFarlane, A. (1916), *Lectures on Ten British Mathematicians of the Nineteenth Century*. New York: John Wiley & Sons, Inc. <https://archive.org/stream/lecturesontenbri00macfuoft>.

<sup>111</sup> See p. 366, p. 22, p. 365, p. 360, [Wayman, 1999, p. 69].

The 2013 opinion article about William Edwin in the *Chatham This Week* ends with: “Eventually whisky took over Hamilton’s life and ended it prematurely. One day, seated for a time in the Rankin Hotel, he decided to go outside for some air and no sooner had he exited the front door of the lobby, when he collapsed and died. [...] William Edwin Hamilton died at the age of 82 leaving no family or estate. A collection was taken up to pay for a funeral, burial plot and attractive stone, and among the contributors were Syd Stephenson [(.. -1948)] of the Planet and Judge Robert S. Woods [(1819-1906)].”<sup>112</sup> Herein it is remarkable that, as was apparently unwillingly suggested about his father’s life by Graves, but thereafter often openly in the short biographical sketches, also William Edwin’s life is described as having ended prematurely due to drinking alcohol. But deciding to go outside for some air and then just dropping dead on the sidewalk does not really sound like the typical death of an alcoholic; an alcoholic dying explicitly from alcohol abuse will probably die very ill, for instance from liver problems, or suffering from Korsakoff syndrome.

Although according to Macfarlane William Edwin had been an alcoholic, after an unknown period he took the gold cure, and he died when he was sixty-seven, having lived a very average lifespan compared to those of his family members. John Rowan Hamilton O’Regan, Hamilton’s grandson, died much younger; he died in 1922 when he was fifty-two. He apparently did not drink alcohol but if he had, his early death would perhaps also have been attributed to it. It does not seem to be known whether Macfarlane drank alcohol himself, but he died of a heart disease in 1913, sixty-two years old; William Edwin thus outlived both of them.

But even Wayman, who in his 1985 book about Dunsink Observatory very nuanced gives the articles about William Edwin, seems to have fallen victim to gossip; in his 1999 article discussing William Edwin’s *Peeps* he mentions that the obituary notes in the Chatham newspapers “included reference to the fact that a man of great intrinsic ability had gone unrecognised in their midst for more than a decade and had died, a shuffling old man in a ragged overcoat, in a Chatham street.” Yet in the *Planet* editorial, given in his 1985 book, it was written that William Edwin “was known to nearly everyone in Chatham,” and in the *Chatham Daily Planet* editorial that he was one of Chatham’s “most widely known and able residents.” Perhaps the most to-the-point description of William Edwin’s life was therefore indeed written by the editors of the *Chatham Daily Planet* of March 1902 when they wrote that “the life story of the late W. E. Hamilton, editor and proprietor of the Market Guide, is one of the oddest ever told.”<sup>113</sup>

### An old man and the gold cure

In his 1952 article, given by Wayman, Lauriston mentions that William Edwin was depicted in an autobiographical novel by Augustus Bridle (1868-1952) “as he might have been seen in the latter 80s.”<sup>114</sup> In the novel encounters with William Edwin are described, in which he seems to have been at the height of his alcoholism. Calling himself ‘Hansen’, William Edwin ‘Burnham’, his *Market Guide* ‘Market Gleaner’ and Chatham ‘Plainsville’, Bridle writes:

<sup>112</sup> See p. 22. For the original description in the *Chatham Daily Planet* of 1902 see also p. 22.

<sup>113</sup> [Wayman, 1999, p. 71], [Wayman, 1987, pp. 304-307]

<sup>114</sup> [Wayman, 1987, p. 308]. For Lauriston’s article see p. 365.

“One Saturday afternoon near Christmas, Hansen at the Mechanics’ Institute was buried in John Stuart Mill’s *Liberty*, yearning to take it home and write marginal comments.[...]

“A shuffly old man with a reiterant cough, whose back had been turned at the book-shelves ever since Hansen entered, came and stood over him. The pockets of his threadbare overcoat bulged with copies of a paper headed *Market Gleaner*. His old Christie hat was battered, his head was bald, a pipe upside down in his mouth, and he bore the aroma of recently acquired whisky.

“““Drink deep or taste not the Pierian spring”,” he said thickly but with a concise accent.<sup>115</sup> “What’s that you have – ah! my old friend Mill. Knew him well – Huxley, Spencer, Darwin – I knew them all. Pleasant fellows. Poor Mill was sometimes a worse pessimist than even Goldwin Smith, who founded Mechanics’ Institutes. In one of his essays he confesses that, the number of permutations and combinations of semi-tones in the diatonic scale being fixed, no new music could be composed after that limit was reached – hence, his sadness.”

“Hansen rose. He had heard of this old man. Burnham; born in Trinity College, Dublin – his father an eminent mathematical savant – addicted to speeches in Greek and Latin; who spent his days law-clerking for Hagarty and Bosworth, many of his evenings in bar-rooms, his midnight prowling about the town, the rest of the night on a straw pallet in a room behind the law offices, and his spare time editing the *Market Gleaner*.

““Mr. Burnham,” he said incoherently, when the bells rang five, “you make me feel as if this Canadian town, just one generation out of the bush, is as old as Canterbury.” “Christmas coming,” coughed Burnham as he buttoned his coat. “Hogs heavy on market to-day; price light. Poor farmers! This town’s English enough,” he went on as they walked up the street. “That clock-house there – English as Bow Bells; that town hall – perfect replica of old English, facade, turret, belfry, market beneath and town hall above; little St. Jude’s church down at the end of the market cobblestones – Anglican as the Book of Common Prayer; cabbies both Londoners; Hagarty – mayor by acclamation – English as Lord Mayor without the accent. All’s English here except the mud-holes – bless my soul! half the farmers are gone home and I’ve not sold twenty Gleaners. Gleaner! Gleaner!” holding out his little sheet to the marketers. “Only newspaper sold on Plainsville streets. Prices and poetry, pork and philosophy. Vanitas vanitatum [Vanity of vanities]! But Solomon never drank whisky. Gleaner? Gleaner?”

“A swift whirl of snow veiled the old news-vendor as Hansen, saddened at the futility of an old man’s knowledge, trudged away among the shoppers into a book store to buy a Christmas book for Sadie.”

William Edwin thus worked for Mayor ‘Hagarty’ who apparently had made his fortune with money-lending, together with the aforementioned ‘Bosworth’. “To such versatile uses had Burnham, M.A., descended in adversity, that the Mayor in his office said to him, “Burnham, you’re a human directory of Plainsville – where does

<sup>115</sup> The Pierian spring was a fountain, sacred to the Muses, and drinking from it would give knowledge and inspiration. Alexander Pope wrote about it: “A little learning is a dang’rous thing; Drink deep, or taste not the Pierian spring: There shallow draughts intoxicate the brain, And drinking largely sobers us again.” Pope, A. (1711), *An Essay on Criticism*. [www.poetryfoundation.org/resources/learning/essays/detail/69379](http://www.poetryfoundation.org/resources/learning/essays/detail/69379).

Miss Sadie Barlow board?” “Seventy-four Centre,” said Burnham promptly. “Opposite the old terrace occupied by factory folk.” The Mayor elevated his eyebrows and whistled. “Add that to the list for the inaugural ball, Burnham.” “Yes, your Worship.” [...]

“[One] evening [...] [Hansen] saw a haystack beginning to blaze and pulled out of it old Burnham who with his pipe upside down in his mouth gazed up at the stars and repeated a superb Latin translation of the psalm verse beginning, “When I consider the work of Thy hands”. The old man had evidently been drinking. He confessed that he had been discharged by [Mayor] Hagarty that morning for “intensified inebriety” during the Mayor’s absence in Europe, and that his last clerical act for his Worship had been to indite a memo on the case of one Eli Snell which he had investigated re foreclosure of mortgage if necessary through continued negligence as the case seemed to be –

“Suddenly Burnham felt himself almost hurled over a fence and led by the arm at a furious pace down to the Market Hotel where Hansen flung down two quarters for the old man’s bed and breakfast.” The next morning Hansen “got the Mayor’s consent to reconsider the cases of both Burnham and Snell.”<sup>116</sup>

Bridle does not give any more information about William Edwin, but he apparently had started, when the mayor was in Europe, to finally drink too much, and it is very well possible that this was the trigger to take the gold cure. Macfarlane wrote that William Edwin had successfully taken it and indeed, Keeley started with his gold cures in 1879 and in the early 1890s institutes were founded in Toronto and Ottawa. Realizing that William Edwin wrote his *Peeps* in the early 1890s, the second edition having appeared in 1895, he may well have written it after having succeeded to stop abusing alcohol. It is not known if he became an abstainer, but the photograph taken when he was in his later years does not have an alcoholic atmosphere. Yet Colles did write that he had suffered physically from “want of proper care,” and that does seem to show. If he indeed was cured of his alcoholism shortly before 1895, he still had seven years to become the kindly old Irishman he was described as, and it is to be hoped that in those years William Edwin still was able to do something with all his knowledge at the Macaulay Club of which the members met every Saturday.<sup>117</sup>

## Two boys drinking

William Edwin already liked alcohol when he was very young, in any case twelve, describing in his *Peeps* how William Edgeworth and he, while attending the school in Clapham, “used to slip into a confectioner’s on the common to eat brandy balls, made of sugar, with a few drops of pure French brandy in each. Liking these so well, the confectioner went one better, giving us the straight brandy in a private room, together with cigars, and being caught, we had for a penance to smoke dried cow-dung and drink ink and water, sitting at a barrel, in the playground before the whole school.” This does of course not sound like what now would be seen as a valued method of disciplining; it may have been very humiliating or, contrarily, have given

<sup>116</sup> Bridle, A. (1924), *Hansen : A Novel of Canadianization*. Toronto: The MacMillan Company of Canada Limited, pp. 107-109, 117, 131-132. <https://archive.org/details/hansenovelofcan00brid>.

<sup>117</sup> See p. 21, [Soutar, 1886, p. 125].

them a feeling of superiority by being set apart from the other boys. It is not known whether these events had a like impact on their lives, or that the two boys recognised each other as kindred souls, but it seems that also William Edgeworth, who died in 1863 of cholera when he was only twenty-nine, had addiction problems, with gambling and drinking.<sup>118</sup>

### Temperance and gossip

What is clear is that both father and son Hamilton liked drinking alcohol; there is no doubt about that. And in both their cases, having lived in places where drinking a lot of alcohol had been rather common, the Temperance Movement got stronger during their adult life; in Canada the Temperance Movement effectively started much later and lasted much shorter than in Ireland. Around the time of the first Dublin temperance organizations Hamilton was in his late twenties; William Edwin was in his mid-forties when in Chatham the temperance organizations established a foothold.<sup>119</sup>

About William Edwin it can of course be stated that he may have been saved by the Temperance Movement; reading Bridle's novel he certainly needed the gold cure. But it can also be surmised that the alcoholic images of both father and son Hamilton were further aggravated by the growing of the Temperance Movement which caused their drinking habits per se to become a subject to talk about, instead of any consequences. Not that without the Temperance Movement there would not have been gossip about them; they both were not exactly everyone's average neighbour. Both of them were seen as lively, good-natured and peculiar, but they also lived their lives just as they wanted to, and that part will not have helped their memory.<sup>120</sup>

In William Edwin's case the origin for his alcoholic reputation seems obvious; he was an alcoholic for a time and for turning that into gossip it was enough to leave out that he got over it again. But what was the real onset to the widespread ruining of Hamilton's reputation can perhaps not been pinpointed exactly, or unambiguously. Having been very famous the gossip about him travelled even faster than usual, and what doubtlessly further added to the spread of the gossip was the large-scale emigration from England, Scotland and Ireland to Canada during those years. Unfortunately, also Graves' very detailed biography did not do much good as can be seen from Macfarlane's summary of Hamilton's private life; a life so full of intricate nuances was far more easily gossiped about.

<sup>118</sup> See p. 370. For William Edgeworth see pp. 44-48 of Barbe, L. (2010), *Francis Ysidro Edgeworth: A Portrait with Family and Friends*, translated from Catalan by M.C. Black. Cheltenham: Edward Elgar Publishing Limited. Barbe also mentions that Lovell Edgeworth, one of William Edgeworth's uncles, a half-brother of Maria Edgeworth and the family heir, was such "a heavy gambler and wine drinker" that he brought the Edgeworths on the verge of financial ruin. Maria Edgeworth then took over the management of Edgeworthstown and became acting head of the family.

<sup>119</sup> In Soutar's *Directory* it can be seen that already in 1840 a Temperance Society was formed in Chatham, but it did not yet have much effect then, [Soutar, 1886, p. 70]. In 1878 the Women's Christian Temperance Union was founded, meeting every Sunday afternoon, [Soutar, 1886, p. 126]. In April 1884 a lodge of the Royal Templars of Temperance was warranted in Chatham, meeting every Friday; lodges were also warranted in three other nearby cities in 1883 and 1884, [Soutar, 1886, p. 45].

<sup>120</sup> See p. 21. For having been good-natured see p. 341 and p. 360.

# Chapter 11

## By no means an alcoholic

*Hamilton was indeed a most admirable person, and a most truly amiable and high-souled one. Nothing but so much greatness could have made so much enthusiasm only what was natural – and nothing but so much enthusiasm could have carried him on to so much greatness.*

— Sir John Frederick William Herschel

### Introductory remarks

In the majority of Hamilton’s biographies, the here discussed biographies of Graves and Hankins, and the short biographical sketches, Hamilton is depicted as having been alcoholic. Hankins speaks of Hamilton’s “dependence on alcohol” and Graves, although he does not state that Hamilton became an alcoholic, writes about his “habitual craving for such stimulus” and mentions that Hamilton “did occasionally expose himself [...] to the charge of excess.”

Just like Hamilton’s behaviour at the event at the Geological Society in February 1846 these ‘exposures’ led to heavy gossip; Graves remarks that it was “a most exaggerated notion of [Hamilton’s] weakness, of the degree to which he yielded to it, and of the number of his lapses.” The “excess” was not to such a level that he became really drunk or even violent; Hankins explicitly states that an event as had happened at the Geological Society never happened again. Yet, in the contemporary biographical sketches it is often simply stated that Hamilton was an alcoholic, therewith implying that he was an alcoholic according to current standards, making the question whether he would have been diagnosed as an alcoholic if he had lived today an intriguing one. Before trying to answer that question it must be remarked that no statement is made here about how well Hamilton may or may not have taken care of his health; he was, as has been argued, more interested in writing beautiful mathematics and winning himself an “imperishable name” than in becoming very old.<sup>1</sup>

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The quote was written by Herschel to Dunraven in December 1865. [Graves, 1889, p. 226].

<sup>1</sup> See p. 421, p. 475. In the previous chapter it was shown that Hamilton’s ‘occasional exposures’ took place during an undefined time period between September 1848 and presumably spring 1851, with as an upper limit January 1854. For the event at the Geological Society see p. 414, ff..



One other point must be made here: the fact that Hamilton did not remain to be a teetotaler after 1848 doubtlessly caused disbelief as regards his control over his drinking habits. And also now such doubt will perhaps not be totally taken away by the following extensive discussion of Hamilton's use of alcohol, but normally, even after having been a heavy drinker for a certain time period yet without problems, there would be no need for anyone to prove not to be dependent by never drinking any alcohol anymore. It was Hamilton's bad luck that, being so famous, he was already during his lifetime so much gossiped about that the only way everyone would have accepted that he was not an alcoholic would have been if he had completely abstained from alcohol for the rest of his life.

And this is the main problem; although there are criteria defining what it is to have some disorder, there are no criteria defining what it is *not* to have that disorder. Likewise, while it is often possible to prove beyond reasonable doubt that someone did do something, it is much harder to prove that someone did *not* do something; if no one saw him do it, he may have done it secretly. This also applies to Hamilton: being able to read so many letters written by him, and having so much information about him, many of his habits can be derived easily, but that he was not an alcoholic can not be shown, that can only be shown to be extremely illogical. Which is what will be tried for a last time in the next sections.

## 11.1 Discussion of the DSM-V criteria for alcohol related disorders

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) gives standard criteria for the classification of mental disorders and is used internationally. Taking the latest edition, the DSM-V,<sup>2</sup> in the chapter 'Substance-Related and Addictive Disorders' the alcohol related subjects are: Alcohol Intoxication, Alcohol Withdrawal and Alcohol Use Disorder. In order to see whether Hamilton would be diagnosed as alcoholic nowadays it appeared to be most practical to give the diagnostic criteria, directly followed by comments on Hamilton's case.

### Discussing the criteria

**Alcohol Intoxication** 'Intoxication' is described as: *Clinically significant problematic behavioral or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment) that developed during, or shortly after, alcohol ingestion. One (or more) of the following signs or symptoms developing during, or shortly after, alcohol use: slurred speech, incoordination, unsteady gait, nystagmus, impairment in attention or memory, stupor or coma.*

Graves described only one event which might meet a part of this description; the event at the Geological Society. According to these criteria it is certainly possible that Hamilton was intoxicated then; he became violent and had to be restrained. Graves did not describe the manner in which Hamilton's violence showed, but the reason he became violent was not because of problems he had with other people; Hamilton described the event as having been "seized with a giddiness and rush of

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<sup>2</sup> [APA, 2013]

blood to the head, which totally incapacitated me from [attending the lectures], and indeed from keeping my ideas under my control." This description sounds as if the experience was completely alien to him; if it was indeed some sort of attack then that is logical, but if it was due to the alcohol and was a sign of drunkenness it can be concluded that he was not at all used to being drunk.

Graves saw Hamilton as a "sufferer with scarcely any disturbing consciousness of the evil it involved" and indeed, Hamilton saw no problem in drinking alcohol. About what happened at the meeting of the Geological Society Graves wrote that "this painful event became generally known, and was much talked of in society," but it can be surmised that Hamilton saw the violence as the real problem; having drunk "what he was told was only a moderate quantity of wine" he did not believe he had been drunk and assumed it was due to the combination of the wine, the excitement of that evening, and the abstemious period of hard work just before the meeting. After the trouble it costed Charles Graves to convince Hamilton to care about his reputation, he acted upon the counsel and abstained from alcohol for two years. After these two years he started to drink again, but an event like this never happened again.

Violence was indeed quite alien to Hamilton; the only other time that Hamilton was named in connection to violence was after Catherine's death, when according to Hankins Hamilton's remarks about her husband Barlow "increased in violence." But after the Disneys intervened he calmed down again, and there is not any suggestion of alcohol in relation to these events. Generally, Hamilton was clearly not an aggressive person, or it must have been the "good honest thundering passion" if one of the servants had touched his papers. There are no records of relational problems due to drinking or of him provoking quarrels; he was, contrarily, described as very honest and direct yet polite and humble, and as having had a grave old-fashioned gallantry.

What Lady Hamilton thought about her husband when he came home after having been drinking at dinners is not known, and it is also unknown if she drank alcohol herself. There are no accounts of complaints from her, or from people around him, which are in any way related to alcohol, except of course at the event at the meeting of the Geological Society. But even after this event Hamilton remained good friends with Sedgwick, the geologist and former president of the Geological Society of London and one of the founders of the Geological Society of Dublin, and the memorandum on the yearly variation of the expansion and elevation of the surface of Ireland, which had made him so excited before the meeting, was published, communicated by Mr. Mallet, as if nothing had happened. The only reminiscence of the event was a part of the last sentence of Hamilton's published memorandum: "The conversation in which I was engaged with you and others on this and similar subjects at the last anniversary dinner of the Geological Society interested and excited me at the time very much indeed." Hamilton always remained to be a welcomed guest at the meetings of the various societies; the gossip about him drinking too much does not seem to have come from his fellow scientists.

As for the rest of the symptoms, there is not any indication for them in Graves' biography, rather on the contrary; while sipping porter when fatigued after long hours of work he apparently could finish the work he stayed awake for. And Graves explicitly mentioned that the gossip about the number of his "lapses", and the "degree to which he yielded to it," was exaggerated.<sup>3</sup>

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<sup>3</sup> See pp. 415-416, p. 421, p. 305, p. 428.

**Alcohol Withdrawal** The diagnostic criteria for ‘Withdrawal’ are *A: Cessation of (or reduction in) alcohol use that has been heavy and prolonged. B: Two (or more) of the following, developing within several hours to a few days after the cessation of (or reduction in) alcohol use described in Criterion A: autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm), increased hand tremor, insomnia, nausea or vomiting, transient visual, tactile, or auditory hallucinations or illusions, psychomotor agitation, anxiety, generalized tonic-clonic seizures. C: The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. D: The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.*

Hamilton became abstinent after the event at the Geological Society in February 1846, and if assuming, but just as an upper limit since it is known that he was always temperate at home, that his use of alcohol had become heavy and satisfied criterion A, it could be suggested that he may have had withdrawal symptoms since two months later he wrote in a letter to Graves: “Whatever temporary inconvenience the adoption of this course may have occasioned has long since disappeared.”

But according to the *Jellinek* website, a Dutch website for information on and help for alcohol and drug abuse, withdrawal symptoms are at their peak after 24 hours and last 3 to 7 days, of which the first days are the worst.<sup>4</sup> But certainly during periods he was working at home Hamilton did not drink during the day, except perhaps at very special occasions such as drinking a glass of wine to the health of Mrs. Wilde’s baby. About these periods Graves explicitly mentioned that Hamilton sipped porter when he wanted to finish some work but became tired;<sup>5</sup> also this drinking will thus also have taken place late in the evening and in the night. But if he usually did not drink during the day withdrawal symptoms should have been present every day; if the peak is 24 hours after the last glass they will start hours before that, and there are definitely no records of that.

It can, of course, be suggested that the sipping of porter was to suppress withdrawal symptoms, perhaps some people suffer from them somewhat later. But drinking so much that symptoms would be suppressed would certainly cause the mathematics not to flow anymore, not even in his brilliant case. It must be kept in mind that speaking of Hamilton’s mathematical work Graves was indicating hours and hours of highly concentrated work and that, for a substantial part, Hamilton was used to work in his head; every scientist knows that doing that on such a very high level cannot go together with being under the influence of alcohol.<sup>6</sup>

Moreover, reading about these withdrawal symptoms, the shaking and distress, and realizing that people in Hamilton’s time also knew these symptoms, it becomes obvious why Graves explicitly mentioned that Hamilton’s handwriting was firm and clear and flowing: without using the words Graves was actually showing that Hamilton did not suffer from withdrawal symptoms.

Indeed, as seen from Hamilton’s notebooks, the “temporary inconvenience” he was talking about referred to the social inconveniences of not drinking at dinners,

<sup>4</sup> [www.jellinek.nl/vraag-antwoord/alcohol-drugs/alcohol/behandeling](http://www.jellinek.nl/vraag-antwoord/alcohol-drugs/alcohol/behandeling) [Accessed 09 Sep 2014].

<sup>5</sup> Graves also seems to have believed that Hamilton drank beer in order to get warm again after long hours of mathematical work, but that idea is challenged, see p. 494.

<sup>6</sup> See p. 418, p. 42.

drinking wine clearly still being customary in his circles; in May 1846, about three months after the start of his two years of abstinence, Hamilton wrote: "I dined with Lord Heytesbury [(1779-1860)] on Saturday, not thinking it right to decline another invitation. His Excellency was very kind in manner and had the air of entering with the interest of a friend into my concerns, as respected my health, the Academy, and the Observatory. He asked me at dinner to drink champagne with him, and took it very good-humouredly when, on his then inquiring whether I preferred any other wine, I said that with His Excellency's permission I should prefer to pledge him in water. This was the sixth or seventh time of my dining in company since I adopted the water system."<sup>7</sup>

**Alcohol Use Disorder** The criteria for Alcohol Use Disorder are: *A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:*

1. *Alcohol is often taken in larger amounts or over a longer period than was intended.* This is not known for certain; Graves did write that "friends began to fear that he was in danger of losing control over the propensity," yet he never mentioned anything about losing control over the quantity. Perhaps apart from the event at the Geological Society Hamilton was never really drunk; it is therefore extremely unlikely. Hamilton only once expressed a thought about having been drinking more than he wanted to, namely at the meeting of the British Association in 1845. But according to Graves that was *religious* contrition; he was by no means drunk and not even tipsy, on the contrary, Graves writes that "he was perfectly clear in mind and in possession of all his powers." To his losing control it can be said that Hamilton then sat at a banquet which means that his glass will have been poured for him making it very easy to lose focus on the amount, and that his reacting so severely to it means that he was actually used to being in very good control.
2. *There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.* When Hamilton started his two years of abstinence he was clearly not very motivated to stay a teetotaler. He apparently did not vow since he did not see the problem of drinking alcohol; Graves wrote that he was a "sufferer with scarcely any disturbing consciousness of the evil it involved." He did successfully cut down after the counsels though; after the first one in 1846 for two years completely, and after the second one at some unknown time, most likely in 1851 but before January 1854, to a non-excess level for good. And both times Hamilton changed his behaviour instantaneously.<sup>8</sup>
3. *A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.* This is clear, it does not remotely apply to Hamilton. Apart from doubtlessly not doing the groceries himself, he worked on his mathematics at any moment he could find except when he visited or received friends, took long walks in the fields, went to church, visited lectures and meetings, did astronomic measurements, lectured on astronomy, attended, once a

<sup>7</sup> [Graves, 1885, p. 522]. The Temperance Movement initially focused on liquor and less on wine and beer, see also p. 433.

<sup>8</sup> See p. 469, p. 409, p. 421.

year, the meeting of the British Association or took a short vacation. And he was, as Graves mentioned, always temperate at home; during the long periods of working at home he only sipped porter when fatigued. And he seems to have come down for breakfast most regularly.

4. *Craving, or a strong desire or urge to use alcohol.* According to Graves Hamilton did crave for alcohol, but Hamilton doubtlessly did not see it that way; if he would have recognized strong cravings he would have known that he had a problem, and according to Graves he did not. Moreover, always being temperate at home, working deeply concentrated for many consecutive hours on many consecutive days would be quite impossible if he was craving for alcohol.
5. *Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.* It is never mentioned anywhere that Hamilton failed to fulfill his obligations; only twice it was suspected by the Board that he had neglected his astronomical duties, yet the idea was not that he had done that because of alcohol, but because of his focus on mathematics. And only every now and then he skipped a meeting, such as the meeting of the British Association in 1839 when many family members were ill, and in 1848 when he was in distress about Catherine, but that also had nothing to do with alcohol since that happened during his abstemious years. Hamilton would doubtlessly have been horrified if his drinking would have hindered him in his work; he even saw the quaternions as a good reason to injure his health if that would be necessary to fully develop the system and give it to the world, thereby winning his imperishable name.<sup>9</sup>
6. *Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.* It is known, since Hamilton wrote almost every day either letters to others or notes for himself, that he normally did not have interpersonal problems. The few times that he had problems with others it was work related, and perhaps, as De Morgan wrote in his obituary notice, when he sometimes was too honest for people to handle. It also meant that he could feel very insulted when his truthfulness was questioned; in the anecdotes in the third volume of Graves' biography it is told, presumably by Graves himself, that in "his earlier years" he challenged someone to a duel, "who, as he conceived, had impugned his honour or truth." Yet the fact that he was satisfied by Colonel Larcom's "obtaining for him adequate verbal satisfaction" indicates that he had not challenged out of sheer anger or even lust for revenge. And in his later years he must have calmed down even further; De Morgan added that Hamilton's "tolerance was perfect," which would certainly not fit in with the description of this criterion.

As regards to quarrels at home, it is of course not known whether Hamilton ever quarreled with his wife since Graves would probably not write about that, yet there was certainly no violence towards her. The only time it is known that they quarreled is when Lady Hamilton made the quarrel over the letter of Dora Disney. There do not seem to be any records of quarrels Hamilton provoked except perhaps the duel, and that was certainly not because of alcohol.

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<sup>9</sup> See p. 404.

7. *Important social, occupational, or recreational activities are given up or reduced because of alcohol use.* In his later years Hamilton regularly gave up social, occupational, or recreational activities, but he did that because of work or illnesses of family members; never because of alcohol. On the contrary, the only time he mentioned to have declined invitations in relation to alcohol was when he was unsure if he would dare to refuse drinking champagne with his host; he wrote that Lord Heytesbury “asked me at dinner to drink champagne with him, and took it very good-humouredly when [...] I said that with His Excellency’s permission I should prefer to pledge him in water.”

Throughout his adult life, but especially after he found his quaternions, Hamilton tended to lock himself up for extended periods of time to work on his mathematics, perhaps indeed even declining invitations, and in his last years he seems to have become even more recluse because of the combination of his slowly failing health and his work on the quaternions. In 22 years he wrote two books on quaternions, which, including tables of content and a preface, took up 1693 pages; he thus wrote, assuming that he worked every day including the weekends, on average one page every five days which is very much for original mathematical work. But as if this was not extraordinary already he also published at least 200 pages in the form of papers and corrected the proof sheets of his books without assistance. His work was so original that even his fellow-mathematicians often had a hard time to understand it, and trying to write down all that was in his head before dying kept him from attending social events. But he will not have been unhappy because of it; he lived for his work.<sup>10</sup>

8. *Recurrent alcohol use in situations in which it is physically hazardous.* Hamilton, when an adult, doing hazardous things, whether having been drinking or not, is highly unimaginable, and Graves never mentions anything even remotely reminiscent to that. The only thing he did which could be regarded as dangerous was what Charles Piazzi Smyth (1819-1900) noted in his diary, as given by Wayman: “Sir W. Hamilton in young age is said to have hopped on one leg all around top parapet;” Graves partly corroborates this story by mentioning that “his practice of walking on the parapet of the Observatory roof is on record.” And perhaps a bit dangerous was that he rode his horse Planet while not being a skilful rider; in 1831 Hamilton wrote to Wordsworth: “I have lately got a mare whose countenance and character I like. I call it Planet, to distinguish it from a far more eccentric creature, Comet, whom I have degraded from the saddle to the car; in revenge for which Comet broke the shafts the other day. This morning Planet and I turned some neighbouring fields into an Ecliptic, and swept over enormous orbits, to the great amusement of some bystanders, who saw that notwithstanding the glee of horse and man and our good-humour with each other, I was far from being a skilful rider, and was every now and then losing my stirrups in the race, although I was fortunate enough to keep my seat.” But it all had, of course, nothing to do with alcohol.<sup>11</sup>

9. *Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or*

<sup>10</sup> See p. 225, p. 318, p. 461, footnote 4 on p. 2, p. 249.

<sup>11</sup> [Wayman, 1987, p. 314], p. 82, [Graves, 1882, p. 470]

*exacerbated by alcohol.* It could be suggested that Hamilton had one problem with drinking: he likely kept drinking after the fits of gout had started in 1856, although the fits were, in the beginning, very sporadic. It is never known if someone will develop gout after one first fit, and it is unknown if Hamilton realized then he would be developing gout in his later years. It was known then already that alcohol can trigger gout attacks, but alcohol is not a cause for gout; drinking alcohol despite the gout could thus be seen as a sign that Hamilton was not always acting very wisely. Sipping porter when he felt fatigued was apparently good for staying awake and alert and thus being able to finish his work, yet it was not good for the gout. But that is rather an indication of an unhealthy focus on his work than of a problem with alcohol.

Although he philosophically thought of a fit of gout as an “admirable exercise”, in his last years he also wrote: “I cannot work, when an invalid, for so many hours consecutively, as when in full and normal health. A feeling of fatigue comes on.” Knowing how important Hamilton’s mathematics was for him, it is hardly conceivable that he would deliberately risk not being able to work as usual by triggering a fit through drinking alcohol; it can thus easily be assumed that in his last years he drank substantially less than he had used to, and probably nothing. That would be in accordance with a statement of his doctor, that he “never found him under the influence of alcoholic stimulants” at whatever time he visited him, early or late. And indeed, according to Graves Hamilton had always been temperate at home, which will have made it easy to stop drinking porter after his gout had worsened.<sup>12</sup>

10. *Tolerance, as defined by either of the following: 10a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect. 10b. A markedly diminished effect with continued use of the same amount of alcohol.* These criteria suggest that the alcohol is used to achieve a change of mood: drinking to suppress unhappy feelings, trying to gain happier feelings, or perhaps even trying to drown in unhappiness. In this essay it has been extensively argued that Hamilton never drank to change mood; he found his consolations in his faith, his mathematics and metaphysics, his family, his friends and his poetry; he thus also did not need ever more alcohol. And as regards the most unhealthy option, wanting to become even more unhappy, it is known that in the summer of 1832 Hamilton discovered how not to sink into periods of depression and gloom anymore; he was never seeking unhappiness.

It is remarkable that during Hamilton’s most difficult times, namely the six-week correspondence with Catherine in 1848, the months after her death, the period of intense correspondence with De Vere in 1855 invoked by, and by itself again invoking, many painful memories, and his encounter with Louisa Reid Disney which even led to “disturbed letters”, there is not any mention of alcohol. Hamilton wrote letters, very many letters, and found consolation in the many understanding and sympathetic reactions he received, and it clearly helped; according to Hankins, in his later years references to Catherine became less frequent.<sup>13</sup>

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<sup>12</sup> See p. 244, p. 474.

<sup>13</sup> See p. 118, p. 179, p. 318.



11. *Withdrawal, as manifested by either of the following: 11a. The characteristic withdrawal syndrome for alcohol (refer to Criteria A and B of the criteria set for alcohol withdrawal). 11b. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.* Withdrawal has been discussed already, and there is never any sign of Hamilton taking a relieving substance.

Hamilton thus scores nine times a ‘no’ to these criteria although Graves would have thought eight times since he believed that Hamilton was “craving” for alcohol. But Hamilton clearly did not see it that way; he was perfectly able to be temperate at home, sometimes even abstemious during periods of hard work. Having had problems with that would certainly have alarmed even Hamilton himself, but he never expressed any thoughts on how he managed to be temperate at home; he just mentioned his abstemious periods as connected to periods of hard work. To the first criterion he scores an ‘extremely unlikely’ instead of a ‘no’ but that is due to the fact that it is never discussed in the biography apart from his one-time religious contrition; and to the ninth criterion he scored a ‘maybe’ because he did not stop drinking immediately after his first attack of gout, although he did when he became really ill.

There thus was, as can be seen, not any question of a “problematic pattern of alcohol use leading to clinically significant impairment or distress;” being a “sufferer with scarcely any disturbing consciousness of the evil it involved” he did not experience any distress which was caused by his use of alcohol, and after receiving his counsels he took immediate and useful action. Although he most likely did not do so because he thought that he had a problem with alcohol; he did it in order to save his reputation. His failure to do the latter led to the writing of this essay.

Finally, in the DSM-V disorders are discussed which are related to drinking alcohol: Other Alcohol-Induced Disorders and Unspecified Alcohol-Related Disorder.

**Other Alcohol-Induced Disorders** These disorders consist of *Alcohol-induced psychotic disorder* (*‘Schizophrenia Spectrum and Other Psychotic Disorders’*); *alcohol-induced bipolar disorder* (*‘Bipolar and Related Disorders’*); *alcohol-induced depressive disorder* (*‘Depressive Disorders’*); *alcohol-induced anxiety disorder* (*‘Anxiety Disorders’*); *alcohol-induced sleep disorder* (*‘Sleep-Wake Disorders’*); *alcohol-induced sexual dysfunction* (*‘Sexual Dysfunctions’*); and *alcohol-induced major or mild neurocognitive disorder* (*‘Neurocognitive Disorders’*). *For alcohol intoxication delirium and alcohol withdrawal delirium, see the criteria and discussion of delirium in the chapter ‘Neurocognitive Disorders.’ These alcohol-induced disorders are diagnosed instead of alcohol intoxication or alcohol withdrawal only when the symptoms are sufficiently severe to warrant independent clinical attention.*

These disorders do not apply to Hamilton, he certainly did not have any severe symptoms; his violence at the meeting of the Geological Society was a one-time event. He was not depressed other than having had melancholy feelings due to lost loves and illnesses around him, and he does not seem to have suffered from any hangovers. Of course, nothing is known about his sexual functions or dysfunctions but there are no indications of any disorderly behaviour; he had woman-friends while being perfectly able to also socialize with the men around them.

And his marriage seems to have been well; apart from having had three children together nothing is known for certain about their married life; this was the Victorian Era. Yet the Hamiltons were said by Graves to have been an attached couple.

**Unspecified Alcohol-Related Disorder** *This category applies to presentations in which symptoms characteristic of an alcohol-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any specific alcohol-related disorder or any of the disorders in the substance-related and addictive disorders diagnostic class.*

There is not any sign at all that Hamilton suffered from distress or impairment in social, occupational, or other important areas of functioning; although in his later years he did not like social gatherings very much, during his whole adult life he did enjoy the various scientific meetings. He always liked company except perhaps when working, but even then he was happier when knowing that his wife was around.

Indeed, reading all the letters given by Graves, he appears as having been very trustful, knowing very well that he was liked and loved by many people, and he was able to unburden his heart to friends, even in those socially very restricted times. He worked hard to stay humble, which surely may have been difficult for him, having been so honored from such a young age. He was in distress when people he loved were indisposed or ill, but there is never any record of drinking during such periods. He did not drink to change mood and did not seek consolation in alcohol; as mentioned, during periods of distress he wrote letters.

### **Sensitive to gossip**

Charles Graves' 'counsels' were not anything like therapeutic counsellings as might be expected that an alcoholic would need; both times he warned Hamilton about his reputation. People had started to gossip about Hamilton's drinking habits, the gossip most likely being enhanced by the changed views on the use of alcohol due to the Temperance Movement. In case of the event at the Geological Society it is clear what triggered the gossip, but also regarding the later gossip it is not difficult to see where it came from. Hamilton was often not seen for weeks, working in his study day and night, doing work, as Graves described it, 'hardly anyone could attach due value to, and which still fewer could comprehend,' while between such hermit-like periods he can easily be imagined socializing and although not monopolizing the conversation talking lively, enthusiastically trying to explain something utterly abstruse which sounded simple enough to him but not to his conversation partners. And thus socializing he drank wine, between 1848 en 1851 or 1854 "occasionally" even "to excess", although it was not so bad as was mentioned in the gossips. But usually doing what he wanted to do, leading Graves to the remark that a change in his habits could "only be self-imposed," Hamilton seems not to have cared much about this kind of gossip; he reacted to the counsels yet he had to be reminded of his reputation even twice.

Still, there was a kind of gossip which does seem to have made Hamilton feel social stress, although not regularly, and it did not induce drinking alcohol. In 1830 Hamilton mentioned in a letter to Lady Campbell that he hoped that if his "scientific works should cause me to be remembered, and enable me after my death to influence

the minds of men, my poems may perhaps survive to show that I had not been quite a harsh and rugged being, nor quite insensible to feelings of gentleness and beauty.” He apparently worried that people in Dublin saw him, as he wrote in 1856 to Agnes Nichol, as a “perfectly prosaic person, with not a bit of the romantic about him;” that seems to have been a part of his reputation he did care about. Which in itself seems not so strange; the Irish culture then, and probably even now, being much more romantic than for instance the Dutch culture, he may certainly have been right, people may have seen him as a cold scientist, but that was of course not at all what the gossip was about. Still, it does show that in regard to specific subjects his reputation was important to him after all.<sup>14</sup>

A second subject was failure; when in 1864 William Edwin was abroad and wanted to come home after an unsuccessful expedition to the America’s, partly with his aunt Sydney, Hamilton wrote to him to wait for a while, because it “would have too much the air of an admitted failure.” Although that may of course also have been due to Lady Hamilton, of whom it is known that she was “concerned with position.” William Edwin then went to Canada where he boarded with the Keatings for an, in any case in Hamilton’s eyes, very large sum of money which Hamilton had to pay, but not succeeding in finding a job there “Hamilton sent a formal letter offering to pay £20 with 6 percent interest to anyone who would loan that amount to his son for his passage home.” That seems to have been the only time that he was led to unwise decisions due to a fear for a bad reputation.<sup>15</sup>

But it is remarkable, and a clear sign that Hamilton really did not care about the gossip about his drinking, that despite this gossip he did not become afraid of people knowing that he drank; his whole motivation for the two years of abstinence seems to have been the idea that if in some future event he would again suffer such “giddiness and rush of blood to the head” and become violent, no-one would be able to blame it on the alcohol. Indeed, even after the second counsel, given in 1851 or in any case before 1854 and after which he would always remain moderate, he continued to drink in public as is known from his drinking with Mrs. Wilde, who half a year earlier had given birth to her son Oscar (1854-1900), a glass of wine to the baby’s health.<sup>16</sup>

### Not an alcoholic

From the discussion of the criteria given in the DSM-V it can thus be concluded that Hamilton was not an alcoholic. Carefully reading Graves’ biography, learning to know Hamilton as a man amongst his family and friends, but even more so as the mathematician he was, that was to be expected; Hamilton’s ultimate goal, even seen as a divine command, was to win himself an “imperishable name”. He knew he could achieve that, being well aware of how he differed from the people around him, and while sacrificing his health to the quaternions, he simply never would have let alcohol stand in the way.

<sup>14</sup> See p. 82, p. 421, p. 318, p. 89.

<sup>15</sup> [Hankins, 1980, pp. 369-375], p. 173, footnote 116 on p. 383

<sup>16</sup> [Graves, 1889, p. 497]. Hamilton wrote about Mrs. Wilde to De Morgan, and in this letter also some of Hamilton’s wit can be seen: “A very odd and original lady [...] had also lately a baby: such things you know will happen, at least in Ireland; and on my being asked to hand her in to dinner [...] she told me of this “young pagan”, as she called him (or it, for I did not know the sex. I don’t call newborn infants in these countries pagans).”

## 11.2 Testing the risk to become an alcoholic

So far it has been shown that Hamilton was not an alcoholic. But he clearly did drink alcohol, and while discussing the first criterion of ‘Alcohol Use Disorder’, one of the two criteria which did not come up with a straight ‘no’, it was mentioned that it is not known for certain whether or not Hamilton did sometimes drink more than he had intended, although it seems very unlikely that he was not in control overall. But what is in any case unknown is how much effort it costed him to stay in control of the quantity, and it would be interesting to try to find that out using the information provided by Graves. Although it does not change the aforementioned arguments, it could further show whether or not he was “on the brink of alcoholism” as Hankins writes.

This led to the idea of taking self-assessment tests while pretending to be Hamilton, thus finding his risk of becoming an alcoholic, assuming that a low risk correlates to little effort not to become an alcoholic and a high risk to much effort. Taking these tests four periods were distinguished; Hamilton significantly changed his drinking habits four times, but one period was abstemious. The event at the Geological Society was not taken into account other than as an inducement to change; it was a one-time event while the tests measure averages of the four periods of drinking.

### Four different periods

The first period, in which Hamilton drank a lot at dinners but did not drink at home, spans his younger years. The frequency of these dinners is not known but there is some clue; in May 1846, Hamilton’s abstemious two-year period having started in February, he wrote that he had dined out about six or seven times since then, and had declined a number of invitations. That means that in fourteen weeks he may have dined seven times; it would have been more if he had accepted all invitations, but not much more since his remark also sounds as if he could not decline many. For certainty taking ‘worst case scenarios’ here, it will be assumed that during his whole adult life he dined out once a week. It did not give him trouble in his younger years; there is no sign of worry in Graves’ biography for these years, Graves just was happy that the use of wine at dinners had diminished towards the 1880s.

The second period began in 1842 after Lady Hamilton returned from England, or in 1843 after Sydney left, or even after the discovery of the quaternions that year; Hamilton started to drink porter at home.<sup>17</sup> It is not known how often and how much he drank, just that after finding the quaternions he worked very hard and focused for the rest of his life, and that he sipped porter when becoming tired after working for many hours. It is also not known whether or not he drank a strong porter; in 1858 Hamilton joked about XXX to Tait and perhaps therefore Macfarlane assumed that it was the Dublin “porter labelled X<sup>3</sup>”, but in fact it is simply unknown. According to the website *Irish Breweries* “the classic porter strength - from the early 18th century up until 1900 - was around 1056<sup>o</sup>” which converts to about 7.5% alcohol by volume, and that will be surmised to have been drunk by Hamilton.<sup>18</sup>

<sup>17</sup> Graves wrote, in hindsight: “I believe that I have correctly dated the coming on of the obscuration, and assigned its originating cause.” In this essay Graves’ idea is challenged, see p. 479, ff., and a “relaxation of domestic order”, the cause according to Graves, will in any case not have set in before Sydney left in spring 1843, see p. 330.

<sup>18</sup> See p. 10, and footnote 27 on the same page. For the conversion the Brix Conversion Calculator

It is thus assumed that during this second period Hamilton drank regularly and occasionally much, but there are no indications of alcoholic troubles either at home or in public. But describing 1846 Graves remarks that “it was only, I believe, in the course of a year or two before the time now arrived at, that friends began to fear that he was in danger of losing control over the propensity. And at first the danger only showed itself occasionally.” It is not known what Graves meant by this exactly, but it seems most logical that he was indicating that Hamilton drank regularly and every now and then much, and that all their fears were confirmed at the event at the Geological Society in 1846, since this remark is followed immediately by the description thereof. But during this second period Hamilton also had temperate periods as is known from Graves’ description of his religious contrition in 1845, and from Hamilton’s letters about the 1846 event. This period ended with the first counsel after which Hamilton completely abstained for two years.

The third period started in Parsonstown in 1848, and during this period Hamilton apparently drank regularly, and occasionally to excess. But Graves explicitly added that although he had “lost for ever his precious safeguard” he was “usually in the future observant of the rules of temperance, especially at home, where his scientific labour was unintermitted.” Graves was also of the opinion that the gossip was a “most exaggerated notion of his weakness, of the degree to which he yielded to it, and of the number of his lapses.” It is thus clear that although Hamilton did sometimes drink much he did not become really drunk, but the situation was worrying enough for Charles Graves to give a second counsel. Graves does not give the moment of the second counsel, but it happened before January 1854 and more likely already in 1851.

The fourth period thus was, roughly, Hamilton’s last decade, of which Graves mentioned that “though [the counsel] failed to bring about a renewal of the rigorous self-denying ordinance,” meaning total abstinence, “[it] was not without good effect.” It can thus be concluded that drinking to excess did not happen again although Graves clearly had hoped that Hamilton would abstain from alcohol completely; since he apparently still sipped porter when he worked, he thus regularly drank, but moderately. Not much is said about Hamilton’s visits or drinking habits during his later years, but there is one story from which something can be seen: in August 1861 Hamilton dined with his co-examiner Jellett and “other pleasant people.” He had taken a metaphysical paper with him to read while travelling, and when he came home “at about half-past twelve” he “sat up for at least two hours, to read and think on it again.” If he had drunk wine he must have drunk very moderately; he clearly still was able to think about the paper.<sup>19</sup>

### 11.2.1 The AUDIT test

On the website of the World Health Organization (WHO) the ‘Alcohol Use Disorders Identification Test’ (AUDIT) can be found, which has been tested “in a wide variety of countries and cultures, suggesting that the AUDIT has fulfilled its promise as an international screening test.”<sup>20</sup>

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was used, provided by the website *Brewer’s Friend*, [www.brewersfriend.com/brix-converter](http://www.brewersfriend.com/brix-converter). For the website *Irish Breweries* see also footnote 27 on p. 10.

<sup>19</sup> [Graves, 1885, pp. 505-506], p. 424, p. 245

<sup>20</sup> [Babor et al., 2001, p. 12]. The test can be found on page 17. And also, together with many useful links, on the Irish website of the National Documentation Centre on drug use, *HRB National*

The test can be taken online at the aforementioned *Jellinek* website.<sup>21</sup> It consists of ten questions, for each of which maximally four points can be scored. After having taken the test in Dutch the result and an interpretation thereof is shown: 0 - 7 points indicate a low risk to become an alcoholic; 8 - 15 points an increasing risk; 16 - 19 a high risk; 20 - 40 points indicate a very high risk to become one. The English version of the test gives a slightly different interpretation:<sup>22</sup> “Less than 8 indicates sensible drinking. 8 - 19 indicates harmful or hazardous drinking. 20 or above indicates that your drinking is already causing you problems, and you could be dependent.”

Keeping Hamilton in mind, three different tests were taken for the different periods of his life; the two periods before the two councils, 1842 - 1846 and 1848 - 1851/1854, are taken together since it proved to be impossible to make a distinction based on facts from Graves' biography.<sup>23</sup> The second period contained Hamilton's high-church days during which he will never have drunk much; the third period coincided with the writing of the *Lectures*, or the first years thereof, during which Hamilton had more hermit-like periods of very concentrated work than before while it was assumed that in between these periods of seclusion he drank as if he still was used to it, leading to the gossip.

To be on the safe side, and stressing again that therefore worst case scenarios are tested, for all periods the amounts of alcohol he drank are taken at very high levels within the known facts; Hamilton will certainly have drunk less.

### Assumptions for worst case scenarios

Before taking the tests some assumptions can be made which hold for all periods and were already discussed in the light of the DSM-V: for every test it is assumed that Hamilton could stop drinking when he wanted, did not feel guilty, and did not postpone things because of alcohol. It is surmised further that he did not need alcohol as ‘the first thing in the morning’ since nothing like that is ever mentioned in Graves' biography, rather on the contrary, especially attending family breakfasts is regularly mentioned. Hamilton had no blackouts since an event as happened at the Geological Society never happened again, and no-one was ever hurt by him. Except for Smoke the greyhound, but that was due to his tearing a *Book of Common Prayer*.

Another assumption is that, according to Graves, during the second and third periods friends were worried, but that assumption needs some explanation. First, these friends probably were Graves and his brother Charles, clergyman and mathematician, who warned Hamilton twice. Their brother John Graves, the mathematician and Hamilton's friend, seems to have been worried mainly about Hamilton's strict religious opinions and he was, together with De Morgan, worried about Hamilton working too hard. It is not known whether Lady Campbell was really worried when she gave Hamilton “wise counsel”, or that she warned Hamilton just in case. Of Lady Hamilton and the children, and of Hamilton's sisters, Adare and De Vere it is not known if they were worried, there seem to be no records of that.

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*Drugs Library*. [www.drugsandalcohol.ie/14104](http://www.drugsandalcohol.ie/14104) [Accessed 03 Aug 2015].

<sup>21</sup> To go to the test directly: <https://testen.jellinek.nl/tests/92/English-alcohol> [Accessed 09 Feb 2015].

<sup>22</sup> This is in agreement with the AUDIT Manual, [Babor et al., 2001, pp. 19-20].

<sup>23</sup> Hamilton seems to have drunk more in the third period than in the second; yet Graves' worries may also have been influenced by the intensified gossip after the event at the Geological Society.

Second, from Graves' descriptions it can be seen that Hamilton's friends were not worried about his health, they were mainly worried about his reputation. They also worried that Hamilton would lose control over the propensity, yet Graves never mentioned that he already worried over the quantity; it was the regularity he worried about. Directly before describing the event at the Geological Society he explicitly mentioned that Hamilton's handwriting remained firm and flowing, and he called the gossip about Hamilton's drinking during the third period exaggerated, both as regards the frequency as the "degree to which he yielded to it." Graves thus never believed that Hamilton was an alcoholic, in any case in the modern sense, but since Hamilton's friends did worry that he would lose control their worries are taken account of in the second and the third period.

### The results of the four periods

Of Hamilton's younger years, until 1842, it is not known how much he drank; he did not drink at home but he did drink at dinners as Graves mentioned. Since it was assumed, for certainty, that he dined out once a week, he thus drank four times a month. He probably drank much, but since Graves only mentioned "excess" regarding the third period and Hamilton never got really drunk, except perhaps once in 1846, it is assumed that he drank an entire bottle of wine which contains seven standard units of alcohol; it was apparently customary to drink quite a lot at dinners. The outcome of the test is 8 points, the lowest score in the increasing risk category.

In the two periods in which Graves was worried and mentioned that also other friends were worried it is assumed that Hamilton drank a bottle of porter every day, which amounts to three glasses.<sup>24</sup> It is supposed that he also dined out once a week and it will be assumed that he then drank, since Graves mentions "excess" as regards the third period yet no blackouts, seven to nine glasses; a bottle of wine or even somewhat more. The outcome of the test is 12 points, just above the middle of the increasing risk category.

For the last decade of his life, thus after the second counsel, it is assumed as a very high limit that Hamilton drank one bottle of porter, thus three glasses, every day. He did not drink in excess anymore and he thus also will have drunk less at dinners; again as a worst case scenario five glasses are assumed. That may easily have been less, after dinner in 1861 he still was able to think about metaphysics. Friends did not worry anymore, apart, perhaps, the ever dedicated Graves, although even he said about the third period that the gossip had been "most exaggerated". Graves was clearly disappointed that after the second counsel Hamilton did not become a teetotaler, yet he wrote that "the counsel was not without good effect," making the years after the second counsel, here thus the fourth period, trouble-free. The outcome of the test is 5 points, a score just above the middle of the low risk category, called in the English part of the *Jellinek* website "sensible drinking".

### Comments

It should be noted that it is not argued here that drinking a bottle of porter every day would not be unhealthy, and that it is not stated that Hamilton drank every day. The

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<sup>24</sup> The porter Hamilton drank seems to have come in bottles of half a liter, and if it contained 7.5% alcohol per volume, one bottle contained three standard units, see footnote 63 on p. 429.



amounts filled in in the tests are just very high estimates within the boundaries of the information provided by Graves, in order to find the highest levels of risk for Hamilton to become an alcoholic. It must be remarked further that the main difference between the first period and the other periods is the regularity of Hamilton's drinking in the latter ones, and that that was what worried Graves the most.

As seen from these tests Hamilton thus had, in the course of his life, at most an increasing risk of becoming an alcoholic. Even having taken upper limits within the information given by Graves, thus without taking account that Hamilton mentioned abstemious periods especially when working hard, and that Graves writes that he was "observant of the rules of temperance, especially at home," Hamilton never reached the higher risk levels of becoming an alcoholic. In the two periods of drinking more it may have cost him effort to keep his drinking under control, but only remaining in the increasing risk category it will not have been very difficult. Hamilton scored 12 points in the second and third period, and according to the AUDIT Manual scores "between 8 and 15 points are most appropriate for simple advice focused on the reduction of hazardous drinking," and that is of course exactly what Charles Graves did.

When, finally, in the last period the worries of his friends are taken into account the score becomes 7, meaning that Hamilton was still 'sensibly drinking'; and if in the second and third period their worries are not taken into account since they were not worried about already ongoing regular hazardous drinking but mainly about his reputation, Hamilton even never reached more than 8 points, the same score as in his youth, indicating that he will not have had much trouble to keep his drinking under control, just as he clearly always believed he could.

There do remain some loose ends though. Mrs. O'Regan mentioned that her husband said about Lady Hamilton that "she didn't take enough trouble to see that he had proper food and that too many bottles of porter were left about as an easy way of combatting the strain of long hours of work without food." It is, as described, not known how much Hamilton drank when he sipped porter while working; yet about the many bottles it can be argued that Ball mentioned that "Hamilton's nephew", probably John Rathborne, told him that "visits of the housemaid to his sanctum were rigidly interdicted." If it then would be supposed that Hamilton drank moderately, for instance on average one bottle of porter every two days, that is one and a half standard units per day, thereby assuming that he did not clean his study himself, if the household staff was allowed to clean once a month they would find a heap of fifteen bottles. Seeing, in someone's study, so many empty bottles would make almost anyone nervous, and even more so in the times of the Temperance Movement. Until it is realized that the bottles were emptied steadily over a period lasting a month.<sup>25</sup>

### 11.2.2 Not drinking secretly

And there is a last possibility, namely that Hamilton drank secretly, somehow managing to hide any symptoms for his scientific friends; that the gossipers thus knew something Graves did not. But it can be, although indirectly, shown how drinking secretly would have been almost impossible. Hamilton regularly was in company for

<sup>25</sup> [Babor et al., 2001, p. 20], p. 440, p. 359

longer periods of time; he made various trips with one of his children, and visited friends. He loved to travel by boat, where secretly drinking would have been very difficult, or simply impossible.<sup>26</sup> And due to the distances and the time it took to travel most visits lasted many days, sometimes even weeks, yet there are no records of any unusual behaviour, he always was a welcomed guest.

One of the most convincing arguments seems to be that during his adult life Hamilton visited most of the meetings of the British Association; meetings which lasted for about a week. They were held alternately in Ireland, Scotland and England, for instance, the first five meetings were held in York, Oxford, Cambridge, Edinburgh and Dublin. The meeting in Dublin was organized by Hamilton himself amongst others, and that was the meeting where he was, without knowing beforehand, knighted in 1835. The meetings were usually attended by several hundred scientists from various disciplines, and a report of the meeting at Cork in 1843 describes how enormous the organization was: "A great influx of members took place on Wednesday morning, on the arrival of the Bristol, Liverpool, Dublin, and Glasgow steamers, and the strangers were, on their arrival at the reception room, met by a committee consisting of the Mayor, Archdeacon Kyle [(1801-1890)], General Austin, Sir Thomas Deane [(1792-1871)], Sir James Pitcairn [(1776-1859)], and other leading citizens, who took it in turns to be in attendance at the room." The report mentions "the spirit of excitement which generally exists during the week in the towns where the meetings are held" and shows how proud cities were when allowed to organize the meetings: "It is but fair to acknowledge that the citizens of Cork have proved themselves worthy of the [...] preference [of Cork over York], by the liberal scale upon which preparations were made for the reception of the association."<sup>27</sup>

Hamilton twice took a son to these meetings, William Edwin in 1852, and Archibald in 1854;<sup>28</sup> they would certainly have noticed secret drinking. And about the meeting in 1850 Graves writes: "On the 1<sup>st</sup> of August Hamilton left home to attend the meeting at Edinburgh of the British Association. At Dundalk he was joined by his young friend Mr. Barlow, who had recently succeeded in obtaining a Fellowship in Trinity College, and who, travelling with him to Belfast, and thence by steam to Glasgow, became his lodging-mate in Edinburgh, and his companion in attendance at the Sections, and in intercourse with many distinguished friends." Clearly, James Barlow was with Hamilton for the whole week, they even shared lodgings. Perhaps Hamilton could have asked his sons to keep his secret, but with James Barlow that certainly would have been a problem.

After the meetings Hamilton often visited friends, for instance the Disneys in 1854, and he stayed with John Graves in 1856 having had his first attack of gout. Secretly drinking more than was socially accepted would have been very difficult

<sup>26</sup> In 1831 Hamilton described himself on a steam packet in a letter to Grace: "A sailor would stare, no doubt, at my calling this trip a voyage, and a long one; but it is such to me, though far from being a weary one: I greatly prefer it to coach travelling. Where do you suppose I slept last night? on the floor – the most comfortable place in the cabin, even before I was sure that none of my fellow passengers would walk over me, and that my feet, which lay very near to a decaying fire, would not be roasted and eaten before I should awake. I was wrapped up in my cloak and had my great coat for a pillow, and seldom have slept more pleasantly." [Graves, 1882, p. 445].

<sup>27</sup> *Cork Past & Present*, Extract from the Illustrated London News, Vol. III, 1843, p.132 : Meeting of the British Association, Cork Past and Present. [www.corkpastandpresent.ie/history/illustratedlondonnews/meetingofthebritishassociation](http://www.corkpastandpresent.ie/history/illustratedlondonnews/meetingofthebritishassociation) [Accessed 11 Feb 2015].

<sup>28</sup> [Graves, 1885, p. 677], [Graves, 1889, p. 233]

since during those weeks Hamilton was surrounded by fellow scientists; he read his papers for the audiences, he gave speeches and he will often have been in the middle of attention, he was after all the first scientist who was knighted for his work.

After the 1855 September meeting in Glasgow which took place during the difficult months in which he was “unburdening” himself about Catherine in the letters to De Vere, he stayed with the Nichol family at the Glasgow Observatory for a week and became friends with them; secretly drinking that would hardly have happened. In October he wrote to De Vere about this visit: “I found that it at times agitated me to a degree which was imprudent for health, of body and of mind, to write as I was doing before I went to Glasgow, on subjects that are still so very vividly remembered. My visit was an useful diversion of my thoughts.” And that, although he did read mathematical papers at the meeting in Glasgow, he went to the meeting “rather for amusement and to see people than to do anything important.”<sup>29</sup> Indeed, even during the difficult periods he did not stay at home to drink; Hamilton was always able to be comforted by friends.

### 11.2.3 Not drinking to change mood

From various remarks, for instance to Graves at the meeting of the British Association in 1845, or to De Morgan about the dinner on the Queen’s birthday in 1851, it can be inferred that Hamilton could stop drinking whenever he wanted. He did not start to drink while Lady Hamilton was in England although he felt very depressed, he did not drink during the six-week correspondence with Catherine since he was abstemious then, and he did not start to drink more during the period following her death, which was most likely, and in any case partly, after the second counsel. Not developing problematic drinking habits during the most emotionally difficult periods, thus not drinking to cope with sad or distressed feelings, will have been the main reason that he never became an alcoholic. He clearly liked to drink alcohol and was able to stop altogether if he thought there was a reason to do so; yet the only times he apparently saw a reason for himself to completely stop drinking was after the meeting of the Geological Society, and when, in his last months, he became seriously ill.

That he totally stopped drinking alcohol then is not strictly proven but it is extremely likely since Hankins writes: “The physician [who wrote the report on Hamilton’s death], added a statement, that he had called on Hamilton “very unexpectedly early and late ... to watch the progress of his health under such mental pressures and I take leave solemnly to declare that I never found him under the influence of alcoholic stimulants – Moreover I am of the opinion the human mind would be rendered quite incapable of executing such a mighty task if the functions of the human brain were tainted by intemperate habits, to which it has been alleged Sir William was subject.” The obvious intent of the report was to lay to rest rumours about Hamilton’s alcoholism, but they were not easily dispelled.”<sup>30</sup>

<sup>29</sup> [Graves, 1889, p. 43], [Graves, 1889, p. 39], [Graves, 1889, p. 38]

<sup>30</sup> See p. 424, p. 377, for the doctor’s report see [Hankins, 1980, pp. 378-379]. Like the doctor also Joly, while living at Dunsink Observatory, made such an observation; in the ‘advertisement’ on p. v of the second volume of his second edition of Hamilton’s *Elements* he writes: “I take this opportunity of testifying to the extraordinary accuracy both of matter and of printing in the first edition of the *Elements*. Every portion of the work bears evidence of Hamilton’s unsparing pains. I cannot recall a single sentence ambiguous in its meaning, or a single case in which a difficulty is not honestly

Indeed, the views as spread by the gossip, that alcohol led to his early demise, was not the view of the people who knew him best. In June 1865, while Hamilton was very ill already and according to Hankins labouring “mightily on the *Elements* with every ounce of his ebbing strength,” William Edwin wrote to John O’Regan: “We hope to get him to go somewhere for change of air ... and if possible rest from mathematical work, which at present is very exhausting and injurious to him. ... He feels in many ways that he is quite equal to continue his most difficult Quaternion investigations – but when he makes the attempt he then finds either that physical exhaustion soon stops him or that, if he does go on working, a worse reaction follows. He feels this and most painfully, though he will not admit it, or rest from mathematical work for an hour of his own free will.” And Charles Graves, the ‘brother Professor’ who had been Hamilton’s counsellor twice, wrote in his eulogy: “His diligence of late was even excessive – interfering with his sleep, his meals, his exercise, his social enjoyments. It was, I believe, fatally injurious to his health.”<sup>31</sup>

### Not afraid of death

But also if in the end Hamilton worked himself to death that was not a sign of some deep inner unhappiness, as if he had been drinking to avoid such pain. Next to the fact that he did make plans for the time after having finished the *Elements*, an indication for his stance towards death is that in Graves’ biography he mentions a few times that he did not believe, or even wanted, to become very old. In 1858 he was very clear about that; the day after Graves had visited the Hamiltons on their silver wedding-day, Hamilton wrote to De Morgan: “He (R. G.) had the audacity to wish me a golden anniversary of the same event; but I said out, before my wife and children, God forbid! It would in fact be frightful to anticipate the bare possibility of living so long.” But at the end of the letter he added: “As to twenty-five years more life – why not? If it would be frightful to anticipate it, don’t anticipate it, but live on quietly. The clock mutinied when it anticipated the number of times it would have to tick in the coming twelvemonth, but was reduced to order by being reminded that for each tick it would have a second to tick in.”

This sounds very calmly or philosophically and indeed, Hamilton does not seem to have been at all afraid of dying. Religious as he was, he even appears to have been looking forward to go to heaven; when in 1854 he wrote to Lady Campbell about having talked at dinner about the twenty-eight years he had been an Examiner, and his table-companion had remarked so many years to be a frightful retrospect, Hamilton commented in his letter: “I let the conversation on that subject drop; but cannot altogether regret that I have lived so long, though I have had impatient fits.”

Growing old, with a possibility of having to endure painful ailments, must not have been a per se appealing idea in a time where opium, chloroform and laudanum were the usual painkillers. And it can be assumed that in those days, when many people died at very young ages, people dealt differently with death than most people

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faced. I see no sign of diminished vigour or of relaxed care in those portions of the work written in his failing health. My task as editor has convinced me of the extreme caution with which any endeavour should be made to improve or modify the calculus of Quaternions.” Hamilton, W.R., Joly, C.J. (1899), (1901), *Elements of Quaternions*. Longmans, Green, and Co. <https://archive.org/details/elementsofquater01hamiuoft>, vol. 1, <https://archive.org/details/elementsofquater02hamiuoft>, vol. 2.

<sup>31</sup> [Hankins, 1980, p. 376], [Graves, 1889, p. 224]

do nowadays. From a very young age Hamilton visited the Assizes, the court for civil and criminal law, where people could be sentenced to death; Graves remarks about a letter Hamilton wrote when he was twelve: “he speaks of twenty-four men being tried for murder at one Assizes, and fourteen of them sentenced to death.”<sup>32</sup>

Hamilton’s motivation not to want to become very old may also have had to do with the fact that Lady Hamilton died only four years after him, according to Hankins completely blind; she probably was already getting worse also. Knowing how unhappy he was if she was not around, it can easily be assumed that he must have dreaded the idea that she would die before him, realizing that he would not be able to cope with losing her. And it is obvious throughout that Hamilton simply wanted to work so hard trying to finish his *Elements*; when Hart tried to convince him to let the *Elements* appear as a purely mathematical work, all physics being reserved for some future occasion, Hamilton remarked: “I am too old to trust to the future.” He clearly felt that he had to carry on until the book was finished, or die trying.

It can easily be inferred, from everything Hamilton wrote and did, that he chose to work with “excessive diligence” on his “enduring monument” until his very last moments, a monument which was not only for him but also for Ireland; that he chose to try to finish his book before his death over living for at best a few more years, probably even in pain and without his wife. And choosing to work until his last moments is, actually, quite understandable for someone who, from boyhood, wanted to be remembered and had every reason to believe that he could succeed therein.<sup>33</sup>

But if Hamilton so clearly was not an alcoholic, the question must be asked how it ever came this far. What went so wrong that in some of the biographical sketches on the web Hamilton is even described as having died of excessive drinking and over-eating. Trying to find an answer, Hamilton’s main biographies will be discussed.

### 11.3 Rereading Hankins’ biography

Hankins was the first to show what Graves had left out; how much influence Catherine had on Hamilton’s life and how very difficult losing her had been for him, adding crucial information to our idea of who he was. But although Hankins scrutinizes Graves’ biography and fills in the gaps Graves left open, he apparently does not question Graves’ description of Hamilton’s “weakness”.

Hankins explicitly claims that Hamilton’s “condition was never as bad as the Dublin gossips would have it. There were no more incidents like the one at the Geological Society, and there is no indication that he ever lost his capacity for sustained mathematical work. The gigantic volumes of the *Lectures on Quaternions* and the *Elements of Quaternions* could never have been written by a man in an alcoholic stupor.” But unfortunately, the nuances in these lines are overshadowed by his use of other, very pictorial sentences, such as that Hamilton was “on the edge of alcoholism for the rest of his life,” or even “dependent on alcohol” in such a way that it “must have aggravated the stresses that are part of any household.”

Reading his biography, even though Hankins does not literally mention it, the picture emerges of Hamilton often drinking a lot of alcohol, and at least having to fight

<sup>32</sup> [Graves, 1889, p. 548], p. 307, p. 29. See for ailments also Sedgwick’s “coalblack melancholy”, p. 379; he was sixty-nine when he wrote that.

<sup>33</sup> [Graves, 1882, p. 49], p. 249, [Graves, 1882, p. 654], p. 42

hard not to become an alcoholic, which is largely due to the compact way in which Hankins described Hamilton's private life. For instance, as was discussed earlier, describing Catherine's visit to the Observatory in some unknown month in 1845 as having been "upsetting in the extreme," and letting this sentence be followed immediately by "In February [1846] his problems with alcohol became public knowledge," evokes a picture of Hamilton, sad and brooding, drinking ever more for months on end to suppress his upset mind.

Despite Hankins thus actually being much more nuanced than describing a man "in an alcoholic stupor", as Hamilton's widespread image has become, it remains to be inconceivable how someone who was 'dependent on alcohol' and "on the edge of alcoholism" would have been able to live his life without ever drinking too much after 1846, despite having had such difficult times as Hamilton had concerning Catherine. What makes someone an alcoholic is the belief that during such times alcohol is necessary as a consolation, or perhaps even to survive such mental pain; Hamilton should have been dramatically drunk at times, which he was not.

The question thus arises why Hankins thinks that Hamilton was "dependent on alcohol". He seems to have mainly concluded this from a remark made by James Disney, one of Catherine's brothers. Hankins writes in a paragraph in which he discusses the gossip about Hamilton's drinking: "James Disney wrote to Robert Graves, who was working on the biography: 'I hear not without regret from my brother Thomas that you did not mean to shrink from exhibiting his melancholy, or deplorable failing to public view.'" The "deplorable failing" could only be drinking to excess."

But James Disney's remark can be interpreted far more extensively; the Disneys had every reason to be worried. This letter was written in May 1883, thus after the publication of the first volume of the biography. As Catherine's family and Hamilton's friends, with Thomas and Dora Disney even being very closely involved since they were the intermediaries for the exchange of gifts and information between Hamilton and Catherine, it can easily be surmised that they were worried that through Graves' biography everyone would learn about Hamilton's lost love.<sup>34</sup>

In the first volume of his biography Graves had been very open about Hamilton's first love; he had introduced the Disney family by writing: "It is carefully recorded by Hamilton that Tuesday, August 17 1824 was the day on which he made his first visit to the residence of the family of Disney at Summerhill [...]. The Disney family, to whom he was then introduced by his Uncle, became at once to him the objects of warm friendship, and one daughter of the house the source of a still deeper feeling, which influenced his whole life. The five sons were nearly of his own age, were fellow-students in College, and were men of ingenuous dispositions, of ability and culture. The sister by whose charms Hamilton's susceptible heart was instantly captivated was, by all accounts, of singular beauty, amiable, sensitive, and pious." Graves had also openly given a part of Hamilton's letter to uncle James in which he described the beauty of "Miss Disney", a Valentine poem in which he called her 'Kate' and 'Catharine', the poems 'A Farewell' and 'The Enthusiast', and the approximate date of Catherine's marriage. Then he had written about Hamilton's subsequent despair and melancholy, his new love Ellen de Vere, and his despair and melancholy over her.

And about Hamilton's 1830 visit to Catherine Graves had written: "It happened that the lady to whom he had been attached resided not far from Armagh, and he

<sup>34</sup> [Hankins, 1980, p. 224], [Hankins, 1980, p. 384], [Hankins, 1980, p. 379], [Hankins, 1980, p. 453]



went to call upon her; he saw her then, and he never met her again, except twice, or at the most three times, transiently in society, until more than twenty years afterwards, when she lay upon her deathbed," doubtlessly making his readers very curious what would be written about that in the second volume. The Disneys must have been extremely worried about the second volume, knowing all that happened thereafter; everyone would be able to guess now why Catherine had left her husband, and perhaps even learn about her suicide attempt.

Knowing that there had been much gossip about Hamilton's drinking habits, but also about the extended periods Lady Hamilton had been away from home, for the gossipers it would be very easy to claim that they now knew why all this had happened; it would all have been due to his losing the love of his life. Many reputations were at stake, not only that of Catherine, Hamilton, Lady Hamilton and their children, but also Barlow's, the Barlow children's, and that of the Disneys themselves; many people who had known Hamilton personally were still alive. It must not be forgotten that Graves' biography was published deep within the Victorian era.

And as Hamilton's friends, knowing how famous he was, they may not only have worried about Hamilton's reputation in Dublin or even Ireland, but also about his extended remembrance. Hamilton saw himself as a romantic and wanted the world to know his romantic and poetical side, yet he had been very stern in his beliefs of holy matrimony and faithfulness to his wife, and thoughts which in his eyes were sinful had been a burden to him. All the many letters he had written to friends about Catherine Disney were without revealing her name; he seems to have mentioned her name only to her relatives, and to Lady Campbell. The idea that now the whole world would know must have seemed horrific to the Disneys.<sup>35</sup>

Indeed, Graves seems to have soon forgotten himself. He gives away Catherine's name in the index of the second volume, both in connection to the story about the lady's dog as to her death: "Disney, Catherine, 648. Her death, 691."<sup>36</sup> And when, in the third volume, he gives the letter in which Hamilton wrote to De Vere about the "objects of my very early, and of my later, but still youthful poems," of which one was "happily dead" and the other "happily living", Graves writes in the index: "Disney, Miss Catherine, 32" and "O'Brien, Mrs. Robert (née De Vere), 32-33."<sup>37</sup> Almost even more strange is that although he refers to Ellen de Vere using her married name, he does not mention Catherine's married name, as if assuming that people would not recognize her as Mrs. William Barlow if he only gave her maiden name. But it must have been beyond doubt for anyone who had known them from nearby; for instance for James Barlow it will have been easy to conclude now that the languish and fatigue Hamilton had felt just before his visit to Parsonstown had all been about his mother. And after Hankins discovered Catherine's importance, Hamilton's name is not only closely connected with his mathematics, but also with 'a lost love', thereby justifying the Disney's every worry.

Finally, in the words "deplorable failing to public view" Hankins reads a generally stated "drinking to excess". But it seems far more likely that the use of the word 'deplorable' was an explicit reference to the 1846 event at the Geological Society; the "drinking to excess" during some period after Parsonstown had not been like that

<sup>35</sup> [Graves, 1882, p. 160], p. 54, p. 86, p. 208, [Hankins, 1980, p. 354]

<sup>36</sup> See p. 297, [Graves, 1885, p. 708].

<sup>37</sup> See p. 280, p. 312, [Graves, 1889, p. 662], [Graves, 1889, p. 668], p. 314, p. 53.



earlier event. Looking at Graves' extreme truthfulness in the first volume the Disneys will have feared his description in the then upcoming second volume; they must have been very worried that the event, then almost forty years ago, would become even more widespread public knowledge than it already was and if they did, they were right, the event is mentioned in both Graves' and Hankins' biography, in Macfarlane's lecture, and in many of the short biographical sketches. Serving as the ultimate 'proof' that Hamilton had been alcoholic, next to his mathematics and his lost love, his alleged alcoholism came to almost define him.

## 11.4 Rereading Graves' biography

Graves gives his motives to write his biography in the foreword to the first volume of the biography: "The public has some right to inquire why one who has to confess himself to be no mathematician should have undertaken the present work. To such an inquiry I may reply as follows: that although unconnected with Sir W.R. Hamilton by any tie or kindred, I became his friend in the youth of both of us, and that our friendship continued unbroken till the day of his death; that when he was applied to by the editor of the *Dublin University Magazine*, in 1841, to name a friend who should be requested to supply to that Magazine a biographical sketch for insertion in its Portrait Gallery of distinguished Irishmen, he did me the honour of designating me, and furnished me with the necessary facts; that he afterwards sought my consent to his nomination of me in his will as his literary executor – a nomination, however, which he told me afterwards he had thought right to withhold when he found that the remainder of my life would probably be spent in England, and that I should therefore be unable to fulfil the duties of the trust without undue inconvenience; lastly, that after his death I was asked by his sons to undertake the task, and was at the same time informed by several of the most influential of his friends that this selection met their approval, and that they were willing to trust to my judgment the correspondence over which they had control. The consideration of these circumstances overcame a very sincere distrust of my powers adequately to execute so arduous an undertaking; for I was aware that other deficiencies besides a want of mathematical knowledge were among my disqualifications; but I could point to no one who combined the requisite amount of personal knowledge with the appropriate scientific attainments and freedom from incompatible engagements; and I gave a reluctant consent, wishing that the memory of my friend had been more fortunate, but at the same time conscious that by me would be devoted to it the warmth of honest affection and admiration, and the desire to be just and truthful."

In the biography Graves' effort to show his "honest affection and admiration" can indeed be felt everywhere, even to such an extent that overall he seems to have idolized Hamilton. Interpreting Graves' writings, he seems to have been of the opinion that the greatest unfortunateness in the life of this morally superior human being was that he had a "weakness", but that this one flaw in his character could easily have been cushioned by a capable woman. It must have been difficult for Graves to have to write about Hamilton's "insidious habit", yet he will have felt that writing so many pages without even touching that subject would make his biography seem untrustworthy since many people, especially in Dublin although the gossip was probably even far more widespread, knew about the "humiliating event" at the Geological

Society, and about Hamilton's "occasionally drinking to excess" after 1848. The best he therefore could do was explain extensively how this ever could have happened, and "assign its originating cause."

Graves describes explicitly how he saw things in two dark passages: one while describing 1840 when he explains in almost two entire pages how after Lady Hamilton came back and the household "relaxed" Hamilton changed, hinting at later doom and thereby laying his veils of darkness over the biography, and one while describing 1846 when he introduces the event at the Geological Society and starts his description writing that "On the 11<sup>th</sup> of February occurred an incident of critical importance in connexion with the infirmity which was the one shadow upon the brightness of Hamilton's life and character: that infirmity was a tendency to indulge to excess in alcoholic stimulants." He then explains why Hamilton "adopted [a habit] that was fraught with inevitable harm," it was "partly from the ill-health of his wife" that he 'carried on' "his absorbing studies regardless of any fixed hours for meals."<sup>38</sup>

But having read the entire biography and thus knowing what happened exactly, that Hamilton did not perish because of the alcohol, and having read about how he lived his later years, while rereading the second volume with all its dark veils some striking matters emerge.

### **"This crisis of his life"**

The first conspicuity is the introduction of Hamilton's marriage. Graves ends his first volume by giving the letter to De Vere in which Hamilton wrote to have a "dim perspective of possible marriage," and in which he seemed to be quite enthusiastic about Miss Bayly, yet also realistic.

But in the second volume Graves bursts out in the very first paragraph on the very first page by calling the marriage "this crisis of his life", leaving his until then unsuspecting readers completely baffled and bracing themselves for the most horrific stories. Only after having finished the biography and rereading the second volume, it becomes clear why Graves did this; it was not because she was some unpleasant, unkind woman who in the end made Hamilton's life miserable, leaving him because he had turned into a hermit-like alcoholic although it was all her fault in the first place, but because she neither stopped Hamilton from regularly sipping porter at home, nor forced him to always come to dinner and go to bed early. Indeed, even Graves manages, although hidden deep within the first of the aforementioned dark passages, to call her an "attached wife, as well as a good woman."<sup>39</sup>

### **Not 'an', but 'one' "occasional mastery"**

The next conspicuity is the description of Hamilton's changed drinking habits, especially his starting to sip porter at home in 1842 or 1843 and the accompanying "obscuration". Graves writes, in the first of the aforementioned dark passages, thus while still describing 1840: "the insidious habit [...] produced that relentless craving which in a few years from this time exercised over him an occasional mastery; by which he must himself have felt humiliated, and which his friends could not but notice with a deep sadness." Expecting alcoholic doom the reader understands that

<sup>38</sup> [Graves, 1885, pp. 334-335], p. 328, p. 432, [Graves, 1885, pp. 505-506], p. 414

<sup>39</sup> [Graves, 1882, p. 622], p. 126, [Graves, 1885, p. 1], p. 160

it was all due to Lady Hamilton since ‘her illness affected her mind and spirits’ as Graves writes in the beginning of this passage; and Graves continues his attack on Lady Hamilton by writing: “no one ever needed a capable wife more than Hamilton,” a remark by the way in which he, with one stroke of his pen, also diminished Hamilton to a hopeless dependent genius, totally incapable of making his own decisions.

But then, six descriptions of years and 170 pages later, before starting to describe the event at the Geological Society in February 1846, Graves writes: “it was only, I believe, in the course of a year or two before the time now arrived at, that friends began to fear that he was in danger of losing control over the propensity.”

Again only when having read the entire biography and thus knowing what happened exactly, upon rereading the second volume and combining the aforementioned two passages it suddenly becomes clear that with describing the “obscurization” and the ‘long unfelt danger’ Graves was not writing about the rest of Hamilton’s life and some untimely death, as the veils of darkness seem to indicate while reading this volume for the first time, he was instead writing about an exact time frame, beginning in 1842 or 1843 and ending in 1846 at the meeting of the Geological Society, with Hamilton’s friends becoming aware of the “danger” in 1844. And that again changes a lot.

Graves had indeed said that he, at the meeting of the British Association in 1845, probably misjudged Hamilton’s state of mind when he wanted to confess, “I contented myself with the endeavour to strengthen his resolution against a similar failure in the future. Looking to subsequent events, I have doubted whether I ought not have dealt with his communication as one of deeper significance than I then suspected.” It must have been extremely impressive: his friend wanting to confess to him, his misjudgement, the humiliation at the Geological Society some months later, and the subsequent gossip about someone who was “thinking none but high thoughts.” It is easy to imagine that Graves felt guilty; it must have been really hard for him.<sup>40</sup>

The whole event was obviously bad enough indeed, the gossip must have been painful. But Graves thus never meant to describe Hamilton as becoming an alcoholic for the rest of his life; the “occasional mastery” which he apparently saw as the apotheosis of the ‘long unfelt and unrecognised danger’ was certainly humiliating, but it was a one-time event.

### Having “lost for ever his precious safeguard”

Next to Graves’ remark about Hamilton having needed a “capable wife”, another remark which lingers in the mind of the reader after having finished the biography is that Hamilton “lost for ever his precious safeguard” after Parsonstown. It contributes heavily to the picture of Hamilton as an alcoholic; in the dark introduction to the 1846 event at the Geological Society Graves seems to hint at later alcoholic problems by writing that “at first the danger only showed itself occasionally,” and the reader wonders whether perhaps more events will follow which will turn out to be as serious as the event at the Geological Society. Upon reading, this time two descriptions of years and 126 pages later, that Hamilton “lost for ever his precious safeguard,” the superficial reader concludes that the gossipers were right after all.

Yet it can be read how Graves was far less worried then; the “occasionally drinking to excess” had been so shameful already that Charles Graves “who had before

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<sup>40</sup> See p. 469, p. 409, p. 432.

hastened to his rescue did not fail again to give him strengthening counsel.” Indeed, immediately after writing that Hamilton had “lost” his “safeguard” Graves remarks how exaggerated the gossip had been, and that the counsel had been “not without success.” An event as at the Geological Society had, fortunately, not happened again; this counsel was to prevent further gossip, and perhaps a second event which would have totally destroyed what was still left of Hamilton’s shattered reputation.

With describing all that had happened, however wrapped up in his own opinion and blaming Lady Hamilton for these exposures of Hamilton’s only “weakness”, Graves seems to have wanted his readers to know that he would not try to conceal the well-known fact that Hamilton had “occasionally” been publicly drinking more than what was socially acceptable during some years between 1848 and 1851 or 1854. But the choice of the catchy phrase “lost for ever his precious safeguard” is associated more with Graves himself than with Hamilton who did not see a problem with drinking alcohol, and clearly was of the opinion that he did not need a rigid measure not to become an alcoholic; Charles Graves’ second warning sufficed for the rest of his life, even though it was all about his reputation. If Hamilton would have stopped drinking altogether Graves would not have felt obliged to prove over and over again that his friend was not an alcoholic, that Hamilton retained his intellectual powers until his very last days.<sup>41</sup>

## 11.5 Reinterpreting Graves’ biography

But Hamilton did not give up drinking alcohol, and Graves had to write a biography about a man with a very shattered reputation. Thus realizing that Graves’ main intention was to show what a beautiful man Hamilton had been and how many eminent and famous people he had befriended, reading the biography again while keeping in mind that it was written deep in the Victorian era in the days of the Temperance Movement, that Graves really meant the “occasional mastery” to be a one-time occasion, that he himself was a very temperate drinker or even disliked alcohol in his later years, that he could sustain in healthful order and beauty the course of his own daily life, that he in fact did not claim that Hamilton was an alcoholic, that he wanted to restore Hamilton’s reputation however strange he took that on, thereby also realizing that by laying his dark veils Graves was just aiming to prepare his readers for the encounters with the few but painful blots on Hamilton’s escutcheon by explaining their causes beforehand and showing that they were not Hamilton’s fault, then the whole biography changes atmosphere.

Especially the veils over the biography concerning alcohol are not so dark anymore. Graves does not hint at an ‘alcoholic demise’, on the contrary, it was Hamilton’s damaged reputation which Graves found so very hard to bear, and which he wanted to boost again to the heights he thought were just. To try to accomplish this Graves is telling his readers over and over how absolutely marvellous Hamilton actually was; before giving letters or poems or correspondences Graves often writes sentences as “[this sonnet] has an extrinsic interest as showing how his thoughts were at this time engaged in devout appreciation of the Church’s Liturgy” or “all must recognise that his course of action brought out into striking manifestation the nobility

<sup>41</sup> See p. 421, [Graves, 1885, p. 507], p. 260.

of the character of Hamilton who at once obeyed his generous impulses by [...],” or “we come upon an instance of his characteristically generous feeling in regard to his scientific contemporaries, even where they were opposed to him.”

By pinpointing the start of the “obscurization” as precisely as he could, and already writing about that when he was in the process of describing 1840, Graves wanted to make it absolutely clear that his brilliant friend with his high moral principles had, actually, made only one error of judgement; he chose a wife who was incapable of handling his one flaw, his weakness for alcohol. If Hamilton had been a teetotaler, nothing humiliating have happened despite the “relaxation of domestic order”, and Hamilton, together with his reputation, would have been perfect, even with a sick wife. But accepting this flaw, it would have been better if Hamilton would have married someone who would have been able to keep him within a sturdy regime; then all this would also not have happened.

### 11.5.1 The veils of darkness; the marriage

Thus writing, in hindsight, the second part of the biography and working towards an explanation which would make it clear to everyone that it all was not the fault of his wonderful friend, Graves calls, as mentioned, Hamilton’s marriage a “crisis”. Yet throughout the biography it can be felt that his judgement of Helen Bayly is even harsher than what he already writes; his very negative opinion about her is actually the darkest veil he drapes over the biography. And that veil, unfortunately, is the only one which does not become less dark when rereading the biography.

Graves’ indeed very harsh opinion about Helen Bayly becomes evident from a letter to Ellen de Vere after Hamilton’s death which is given by Hankins. Graves writes: “[Her deep piety], I feel certain, is the explanation of [Hamilton’s] proposal to her; he considered that piety to be her all-sufficient qualification. You will see in the end his recognition of her excessive timidity. It was the timidity of one conscious of her utter disparity. ... After marriage the poverty of her mind and the whole nature must soon have revealed itself to him as not to be ameliorated by all the riches of cultivation which he could bestow upon it.”<sup>42</sup>

As mentioned earlier, this makes it almost difficult not to find it hypocritical that when Graves stayed at the Observatory in 1858 he drank to Lady Hamilton’s health, until it is realized that at that time he cannot have had these thoughts yet, he had not read her letters until after Hamilton’s death. It is quite possible that until he read those letters he just thought that she was timid and shy, that she probably did speak to Hamilton but not to guests; this would explain the tone in the 1842 article, which was actually quite positive. Knowing how important cultivation was for Graves, reading Lady Hamilton’s, according to Hankins, “scarce” and “short” letters after Hamilton’s death may very well have changed his whole idea about her; it may have confirmed all the gossip about her. Lady Hamilton having had, according to Graves, a “weak mind”, he probably felt that now he knew the real explanation for her unability to handle Hamilton’s “infirmity” and drew his conclusions; Hamilton should never have asked her to marry him.

The combination of her letters with Graves’ determination to write, as best as he could, about the cause of Hamilton’s “insidious habit”, and with his doubtlessly

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<sup>42</sup> [Hankins, 1980, p. 114]

earlier gained ideas about how she could have prevented that if she had not been so timid and so weak, was probably his main motive to dislike her so much. He did try to sound less harsh in the biography, he even wrote that she was an “attached wife”, but in the additional chapter in the third volume, called ‘A Gathering of Fragments’, he remarks that already beforehand she had had an “early foreboding, a sense of her weak health, both of body and mind, that she was not fitted to sustain the burden of duties properly devolving upon a wife in her position;” as he saw it, she should never have agreed to marry Hamilton.

Graves had wanted Hamilton to marry Ellen de Vere who doubtlessly would have given him a “beautiful life in healthful order,” something the incapable Lady Hamilton had not. And the word ‘must’ in his description of how, according to him, Hamilton “must” have discovered soon after the marriage that he chose a woman with such a poor mind is indicative of his certainty about the marriage, although it also indicates that Hamilton never said anything like that to Graves. Hamilton had known Helen Bayly for years already, and he knew very well who she was. It is true that he did not know that she could sometimes be “in bad spirits” and have “gloomy fits”, something she doubtlessly was obliged to hide in public, but that is different from depth of conversation, that can be judged by talking to someone.

And he had done that; he explicitly said that “her mind I was pleased with from the first, and after a long continued and long impartial study I do not think it very possible that I should be mistaken there,” and that he “deeply respected [her] for eminent truth of character.” It was suggested earlier that he was not looking for cultivation but, next to piousness, for truthfulness; and knowing all he did about her he decided to ask her to marry him and never showed any regrets. He worried about her when she was ill and was stressed if she was not around, and finding such a truthful companion as Helen Bayly seems to have been exactly what he was looking for, and what he needed to be able to work the way he did.<sup>43</sup>

### 11.5.2 The veils of darkness; alcoholism

Next to Graves’ very negative opinion about Lady Hamilton which is draped over the biography, other dark veils have to do with Hamilton’s “insidious habit”. The first veil is that, searching for a reason why Hamilton started to drink porter in the evening, Graves associates the “relaxation of the household” with his “fatal habit”, but what actually turns this description into a veil is that Graves writes about Hamilton’s later drinking of porter at home while still being in the process of describing 1840. Reading this passage for the first time it seems to be a preview of long-term doom to come, and while reading these foreboding remarks the average reader feels a tendency to skip ahead to find out what is coming, quietly wondering if it perhaps might have been better if Lady Hamilton had not come back at all and Sydney would have stayed at the Observatory to take care of her brother for the rest of his life.

Another veil is that, on the same pages as the foregoing veil which was laid over the rest of Hamilton’s life, Graves ‘mournfully’ anticipates the “occasional mastery” which can only be seen in hindsight to be the event at the Geological Society. He thereby further darkens the pages describing the following six years; all Hamiltons happiness, about having his wife back home in the beginning of 1842 and even

<sup>43</sup> See footnote 69 on p. 433, p. 219, p. 115, p. 152, p. 179, p. 129.

including the year of the discovery of the quaternions, is obscured by this veil of darkness. It is quickly forgotten that in 1840 Hamilton did not yet drink alcohol at home; the “obscuraton” had not even begun yet.

A third veil is the remark that in Parsonstown Hamilton “lost for ever his precious safeguard.” Sounding almost haughtily when adding that it would be “unnecessary to revert to the painful topic,” even though he thereafter mentions that the gossips had been exaggerated and that Charles Graves gave his second counsel which was “not without good effect”, by not giving any further information, not even a date for the second counsel, Graves enables his readers to conclude that it was indeed “in the end more than [Hamilton] could fight against.”<sup>44</sup>

Graves thereby completed the picture of Hamilton as an alcoholic, an image entirely opposite to what he had meant to give, going out of his way to describe Hamilton’s “indefatigable industry, intellectual achievements, his noble moral qualities,” and using as a proof that in 1846, directly before the event at the Geological Society “his handwriting was now as firm, and clear, and flowing as ever, showing no indication of any weakness of nerve, any more than the matter showed any the slightest failure in strong and extensively consecutive reasoning.” After having read the entire biography and rereading it while knowing that Hamilton did not die an alcohol-induced death, these veils do become less dark.

### 11.5.3 The veils of darkness; a changed personality

Like the one about the marriage, the last veil does not become less dark after rereading the biography, but it can be interpreted differently after knowing what happened exactly. It concerns Graves’ notion that after Lady Hamilton returned Hamilton became a “solitary worker, taking indeed fatherly interest in his children, and when in company with congenial friends manifesting still the charms of his simple and generous character, but still, it must be admitted, less and less the free-hearted companion allowing all that was in him to show itself unguardedly and almost unconsciously, but rather on the whole more and more self-conscious, and given to refer to what he had done both in science and poetry, not through ostentation or with any diminution of humility, but in a sort of self-defensive apologetic way. This change, however, has, as I have said, gradually spread over some years, and for a considerable time scarcely to be taken note of: but I believe that I have correctly dated the coming on of the obscuraton, and assigned its originating cause [the Relaxation of Domestic Order].”

According to Graves Hamilton thus changed in the years after 1842, “he became a solitary worker” and “less and less [a] free-hearted companion,” a process which “gradually spread over some years,” indicating that its beginning was far from clear. But not only was this the time period after Lady Hamilton came home; Hamilton was also still mourning Cousin Arthur’s death in December 1840. Having lost his parents at such a very young age, it must have been extremely difficult to lose Cousin Arthur, who seems to have been an even closer father figure than uncle James. Indeed, his mourning was so intense that Sydney mentioned to Graves that she remembered “his having said some time afterwards that ever since the event the earth had seemed to him draped in black.” And even in June 1843 Hamilton wrote to Eliza that after Cousin Arthur’s death he saw the world “under a dulness, not to say gloom.”

<sup>44</sup> See p. 328, p. 7, p. 424, p. 432, p. 421, p. 440.



Hamilton had been very tired in the spring of 1843 which may have contributed to the letter to Eliza in June; Lady Hamilton had been ill and according to Graves in March Hamilton had received an “unexpected blow” from the Board of Trinity College. They had seemed dissatisfied with the work done at the Observatory, which “led him to contemplate the possibility of his having to give up pure mathematics,” indicating that it must have been very stressful. And then, after these difficult months having made some refreshing visits in the summer, he found his quaternions.

Yet, however happy Hamilton was with the quaternions, he also was extremely fearful that someone else would claim priority and indeed, he really had to prove his originality. And even after he had proven it, he remained anxious that someone else had already found or almost found the quaternions, until in 1844 he was close to being overworked.<sup>45</sup> But the quaternions also gave him, perhaps more than any earlier mathematical investigation, an extremely strong felt point of focus, and he laid down his presidency of the Royal Irish Association to be able to concentrate totally on them. In his “farewell address” he wrote: “I have found the duties of the office press too heavily upon my energies, indeed, of late, upon my health, when combined with other duties; and [...] I have felt the anxieties of a concentrated responsibility – exaggerated, perhaps, by an ardent or excitable temperament – tend more to distract my thoughts from the calm pursuits of study than I can judge to be desirable or right in itself.”

And not only did he terminate the presidency for the quaternions, at home he even went further; although he regularly had had periods in which he worked through the night while being in a mathematical trance, that seems to have intensified from this time on. It is not known whether in earlier years Hamilton also skipped meals when in the middle of an investigation, but from this time on he certainly did that, next to sipping porter to be able to finish work when he had become tired. Hamilton believed that the quaternions would, even more than his previous discoveries, give him the “bright unsullied name” he wanted to “leave to Mankind’s love”, a dream he dreamt from boyhood, now more in reach than ever, and he was willing to risk his health for them.

But Graves was not so enthusiastic about the quaternions and Hamilton’s relentlessly working on them as can be seen in a letter which Hamilton wrote to Graves in April 1846: “You will perhaps be disappointed, for a moment, when I proceed to tell you that my chief field of scientific work has continued to be the quaternions, or at least investigations which are closely connected therewith. [...] A greater variety may be desiderated, and less of brooding over one conception. Yet, trying to judge fairly, I cannot think that I have done unwisely in keeping this one subject, or

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<sup>45</sup> [Graves, 1885, p. 335], pp. 400-401, pp. 206-207, p. 403, [Graves, 1885, pp. 679-680]. Graves remarks, while describing 1853 and the publication of the *Lectures*: “A reference to the notes of [the preface of the *Lectures*] will also show the extreme care taken by him to put on record what had been done by others in the same direction, though failing of his success. In point of time the Englishman Dr. Wallis (1685) stands first on the list, followed by mathematicians of the three kingdoms: Warren, Gregory, MacCullagh. The list of French mathematicians includes Buée, Argand (to whom a very important step is assigned), Français, Servois (credited with an anticipation evidencing great sagacity), Gergonne, Carnot, Mourey, Cauchy; the German list contains the high names of Gauss, Ohm, Möbius, Grassmann; while a note at the end gives the following enumeration in alphabetical order of scientific contemporaries in the British Islands, who had in various degrees taken interest in his work: Boole, Carmichael, Cayley, Cockle, De Morgan, Donkin, Charles and John Graves, Kirkman, O’Brien, Spottiswoode, and Young.”

subjects of this one class, so constantly before my mind for many months past. [...] Against putting [the quaternions] out of view rather than for keeping it before me, I own that I had abundant inducements to perseverance, from the degree of success with which my endeavours had appeared to myself to be attended. You may perhaps remember my saying to you, when we met, whether in Cambridge or in Dublin last summer, that I thought I had had a good measure of success, so far, with the quaternions. ... I think I may safely say that this success has continued.”<sup>46</sup>

The tone of this letter, almost “self-defensive” and “apologetic”, is very reminiscent to the change in personality Graves had noticed. But that could mean that Hamilton was “apologetic” especially towards Graves; he clearly knew that Graves did not approve of the way he was working on only one subject yet he was politely explaining that he was going to do that anyway. Largely due to the fact that few people, if any, could follow him in what he was doing Hamilton had indeed become a “solitary worker”, and the solitude to which the quaternions thus brought him may well have been the main reason that Graves did not approve of Hamilton’s focus on them.

It is not very difficult though to understand Graves in his worries; in his younger years Hamilton seems to have been very playful. In 1810, when he was four or five years old, aunt Sydney described to Hamilton’s mother a visit to the Vicar of Trim, Mr. William Elliott (.. -1817/1818), his wife Mrs. Elizabeth Elliot FitzGerald (ca 1758- ..), and a curate, Mr. Montgomery. “They had been talking a great deal of Willy to [Mr. Montgomery], however he looked on it as all nonsense, till after tea Mr. Elliot got a Greek Homer, and desired Mr. Montgomery to examine him. When he opened the book he said, “oh this book has contractions, Mr. Elliot, of course the child cannot read it.” “Try him, sir,” said James. To his amazement Willy went on with the greatest ease. Mr. Montgomery dropped the book and paced the room; but every now and then he would come and stare at Willy, and when he went away, he told Mr. and Mrs. Elliot that such a thing he had never heard of, and that he really was seized with a degree of awe that made him almost afraid to look at Willy. He would not, he said, have thought so much of it had he been a grave, quiet child; but to see him the whole evening acting in the most infantine manner and then reading all these things, astonished him more than he could express.”

Born in 1810 Graves was perhaps too young to have seen for himself how Hamilton already changed after his father’s death in 1819; although Graves does write that thereafter “we shall see the boy rapidly changing into the man,” that seems to have alluded to Hamilton’s letters before and after his father died. In the following years Hamilton still seems to have been playful and energetic, and he was regarded as such even during the late 1820s when he still mourned the loss of Catherine; on his journey with Mr. Nimmo the poet Southey described him as “full of life and spirits.”

Then, after having found the quaternions and being almost forty years old, Hamilton changed again, becoming extremely focused, even to the point of willing to sacrifice his health for the development of the quaternionic system. Therefore, the fact remains that Graves saw Hamilton change from a lively and energetic young man into a very focused and often hermit-like worker, which must have made a deep impression on him. But it can thus seriously be doubted whether that was really due to a “relaxation of domestic order.”<sup>47</sup>

<sup>46</sup> [Graves, 1885, p. 513], [Graves, 1885, pp. 520-521]

<sup>47</sup> [Graves, 1882, p. 40], p. 27, p. 30, p. 68

### The lasting influence of the veils

The veils of darkness Graves draped over the biography all helped to evoke an image of Hamilton in which he was slowly but surely slipping down from a happy, playful, extra-ordinary child to a craving solitary worker. In the end, completely contrary to what Graves intended, because of the about six pages containing the veils over the biography<sup>48</sup> which were meant to aid the restoration of Hamilton's reputation, and doubtlessly enhanced by the fact that the biography was so immense that hardly anyone would read it completely, all Graves' carefully phrased nuances on the other two thousand thirty-two pages evaporated like snow in summer. By laying his veils Graves painted an image of an unworldly and simple, domestically neglected and therefore alcoholic genius; and perhaps the fact that he was so very truthful, which can be felt throughout the biography, made it so hard to doubt his conclusions.

#### 11.5.4 Living in Windermere

There is yet another aspect to Graves' role in this story. Throughout the biography there is a strong suggestion that Graves saw it all happen; that he was always in Hamilton's neighbourhood, and that between 1842 and 1846 he was worrying about Hamilton's "insidious habit" in close contact with all their friends. As an example of the strength of this suggestion, Hankins assumes that Graves was actually present at the event of the Geological Society; he writes: "Graves, who was close to the events, reports that "his reason was disturbed for a time. The result was that he became violent, and had to be restrained."" Yet Graves writes: "In letters to me and to another friend, giving an account of the incident, [Hamilton] says that [...] at the top of a high flight of stairs he was seized with giddiness, accompanied by a rush of blood to the head, and became conscious that he could not keep his ideas under control, that in fact his reason was disturbed for a time. The result was that he became violent, and had to be restrained." It thus was Hamilton's own report.

This is only one example of how throughout the biography Graves gives such a strong notion that he was always close by, that it is quickly forgotten that although Graves and Hamilton grew up knowing each other, as adults they did not even live in the same country. But on the first pages of the biography it can be read that while Graves was writing the biography, in the 1880s, he was Sub-Dean of the Chapel Royal in Dublin, and his having lived in Dublin at that time may have added to the strong feeling that he lived there all the time.

Graves left for England in 1833, the year of Hamilton's marriage, to become Curate in Windermere in the Lake District in England, and he came back to Dublin in 1864, a year before Hamilton's death. In England he lived only some kilometers from Rydal Mount, Ambleside where Wordsworth then lived; Graves knew him well and they apparently met each other often. But it means that also during Hamilton's most difficult years Graves did not meet Hamilton regularly, probably not even yearly and then, apparently, mostly in Windermere, although by laying his veils over the biography he gives the impression that he worried about what he saw for himself. Graves must have received information about Hamilton, but he never mentions anything about how or from whom he received it; he just writes that "friends" were worried.<sup>49</sup>

<sup>48</sup> [Graves, 1885, pp. 61, 334-335, 505-507], see also p. 168, [Graves, 1889, p. 239].

<sup>49</sup> There is a beautiful story about Graves' reverence for Wordsworth: after the birth of William

Although, like the biography, also the ‘biographical sketch’ of 1842 seems to have been written by someone who regularly visited the Observatory, already for some years Graves was not living in Ireland anymore; he mentions that Hamilton provided him with the necessary information, and he paid Hamilton a visit at the Observatory “for the purpose of gathering facts.” Before 1833, the year that he moved to England, he had been a ‘not unfrequent visitor’ at the Observatory, but that was also before Hamilton’s marriage. In the summer of 1841 he was asked to write the article but shortly before that, in January, he had also made a short visit to the Observatory, after which he doubtlessly knew about the illness and absence of Lady Hamilton who was staying at Scripplestown then, and about the death of Cousin Arthur. Of the “happy home” he may have seen when he visited Ireland not much was left.

It is not known why Graves still decided to describe Hamilton’s home as he had known it, but not living in Ireland, he probably did not know yet how bad the gossip was about Lady Hamilton’s absences from the Observatory. It must have been impressive though, having known the “happy home” and now finding Hamilton in such distress; Lady Hamilton’s absence and the influence that had on Hamilton may well have been one of the early reasons that he started to dislike her, a dislike which will have been confirmed when, as a highly cultivated man, he read her brief letters.

Not living in Ireland also means that Graves did not see Hamilton’s “change in personality” for himself although he described it as one of the fundamental parts of the “obscuration”, but that he heard it from other people, or that he recognized it from their scarce visits, or that he just recognized it in Hamilton’s letters to himself. That would indeed fit in with the thought that the letter in which Hamilton wrote not to stop working on the quaternions seems to have the tone Graves described.

The fact that Graves did not live in Ireland means that all that he knew about Hamilton’s daily life came from Hamilton’s letters written to him while Hamilton was still alive, from their unfrequent mutual visits, from stories people told him, and from letters from Hamilton’s other correspondences which he read after Hamilton’s death. That can also be an explanation for some curious omissions from the biography, such as the death of Hamilton’s two Rathborne nieces in 1849. Graves wrote about that year that “there is not much to record” despite the enormous impact it must have had on the family; he will not have known that Hamilton’s two nieces had died so suddenly. The reason that Graves did know about the death of Miss Ellis of Abbotstown was due to a poem Hamilton had written, but about his nieces he will not have written anything; Hamilton once said that he could not write poems on the deaths of family members, and he probably did not mention it in letters because they were neighbours.<sup>50</sup>

Perhaps also due to his not living there is a curious ‘mistake’ Graves seems to have made; Sydney did not leave when Lady Hamilton returned, and a “Relaxation of Domestic Order” will therefore hardly have set in in 1842. Only shortly after she left Hamilton received the “blow” from the Board, in the summer he travelled and

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Edwin Graves wrote a sonnet for Hamilton, and Hamilton sent this sonnet to Wordsworth in a letter which was delivered to Wordsworth by Graves himself, as can be assumed from the story without knowing that it contained his sonnet. Hamilton had suspected, and written in the letter to Wordsworth, that Graves would not have “courage to submit it, himself, to your inspection.” [Graves, 1885, p. 97]. Yet Graves was not too modest to leave this out of the biography; he will certainly have seen it as an act of friendship.

<sup>50</sup> See p. 210, p. 206, [Graves, 1885, p. 336], p. 147, p. 172, p. 78, p. 38.

recovered, and then he found the quaternions, becoming a solitary worker indeed. But the fact that Sydney still was at the Observatory until 1843 means that either the “obscuratation” started even later than 1842 despite Graves’ ‘anticipation’ thereof while describing 1840, or both Lady Hamilton and Sydney saw no problem with Hamilton’s drinking. Which would not be unthinkable at all; both women were used to alcohol from their youth and knew Hamilton very well, and they thus also knew about his trouble-free drinking much at dinners.<sup>51</sup>

### **The regularity of drinking and the defence for the one-time event**

The fact that Graves lived in England allows for another alternative interpretation. Not living in Dublin at that time, there was no entire group of friends who, together and from close by, saw Hamilton turn slowly into an alcoholic, as Graves’ description of ‘friends who were worried’ seems to indicate, even while unintended. Graves will have corresponded about Hamilton, and he heard, in any case, about Hamilton’s stressed times in 1844 from his eldest brother John Graves who was worried and wrote to Graves about it; he feared that Hamilton had become ill from overstraining himself, working too hard on the quaternions.

Graves was worried about Hamilton’s drinking after he started sipping porter at home, and although what was worrying exactly is not entirely clear he seems to have been convinced that especially regularity was dangerous; he writes that Hamilton had “adopted [a practice] that was fraught with inevitable harm. It was thus, I have learned on good authority, that an habitual craving for such stimulus was originated; [...] friends began to fear that he was in danger of losing control over the propensity.” What Graves feared for finally happened at the meeting of the Geological Society, therewith apparently confirming the danger of regularity.<sup>52</sup>

And that seems to have been the problem. It can easily be argued that Hamilton’s violence at the Geological Society was not some sign of a deep, hidden anger, since that would have shown more often, certainly in his younger years when there had often been much wine at dinners. Graves therefore could have realized how alien such behaviour was to Hamilton; he could have accepted Hamilton’s own explanation of what had happened and defend that in the biography. But in Graves’ eyes this event was so terribly humiliating, and his belief in the danger of regularity was so strong, that there seems to have been only one focus for him: to come up with a very good explanation and show how this alcoholic, violent man could still be regarded as a simple, friendly, humble, and very hard working genius. His explanation thus was that due to his sick wife and his want for domestic order Hamilton had developed an habitual craving which led to the event at the Geological Society. Choosing that explanation was perhaps wise in their times, but it profoundly influenced Hamilton’s long-term remembrance.

### **11.5.5 Likely sources of information**

But if Graves was not in Ireland, the question arises where exactly he received his information from. It is very difficult to imagine that Hamilton wrote to Graves that

<sup>51</sup> [Graves, 1885, p. 414], p. 401

<sup>52</sup> See p. 404, p. 414, p. 431, p. 469.

he had started to drink porter in the evenings and had no regular meals; it seems far more likely that someone told him that. Moreover, Graves mentioned that Hamilton's friends had been worried and he clearly was one of them; he thus spoke or corresponded about Hamilton. And he must have discussed the Dublin gossip with someone; having become worried he will have heard what the gossip was about in almost real time instead of only hearing about it after Hamilton's death when he was back in Dublin and started to gather information for the biography.

### Charles Graves

The most likely main candidate for corresponding about Hamilton is Charles Graves, the "brother Professor" who did live in Dublin and saved Hamilton's reputation twice. Since he took the trouble of visiting Hamilton, thereby risking that Hamilton would not accept such an intrusion, he must have been very worried indeed. But with regards to the event at the meeting of the Geological Society also Charles Graves will have been reacting to indirect information since he does not seem to have been present, yet he must have learned about it very soon thereafter; Graves writes that "this painful event became generally known, and was much talked of in society."<sup>53</sup>

Charles Graves regularly worked very closely together with Hamilton, perhaps even the closest of the Trinity mathematicians; he lectured on quaternions, he talked with Hamilton about how difficult they were for some people to accept, and in Hamilton's last year they published together,<sup>54</sup> yet he apparently was not a regular visitor to the Observatory. During his college years Hamilton had befriended their brother John Graves who was a year younger than Hamilton; Graves was five years younger and Charles Graves seven years, an age difference which is significant for children.

A strong indication for the possibility that Charles Graves indeed was Graves' main source of information is that he wrote an eulogy in which he mentions Hamilton's great merits as a mathematician, his philosophy, his poetry and his "deeply reverential spirit," and he clearly reacts to the heavy gossip, therewith also revealing what the gossip between the Dublin scientists was about: "It will be a satisfaction to the members of this Academy to be told that his *Elements of Quaternions* – the work upon which he was engaged with most unceasing activity for the last two years – is all but complete. I have reason to know that at no period of his life – not even when he was in the prime of health and youthful vigour – did he apply himself to his mathematical labours with more devoted diligence. Those who did not actually know how he was employed, or who had formed a false estimate of his character, might imagine him indolently reposing upon his laurels, or pursuing his studies in a desultory way. Such a conception of them would be the very opposite to the true one. His diligence of late was even excessive – interfering with his sleep, his meals, his exercise, his social enjoyments. It was, I believe, fatally injurious to his health." Herein Graves' remark that "few were the persons who could attach due value to monuments of scientific work, which still fewer could comprehend" is clearly recognizable.

Charles Graves' thoughts about Hamilton's habits of drinking alcohol are known from a letter he wrote to Thomas Larcom shortly after Hamilton's death: "He was

<sup>53</sup> See p. 415. See for Charles Graves living in Dublin *The Graves Family of Yorkshire and Mickleton Manor, Gloucestershire, England*, [www.gravesfa.org/gen068.htm](http://www.gravesfa.org/gen068.htm) [Accessed 28 Jul 2015].

<sup>54</sup> See footnote 57 on p. 289, footnote 23 on p. 340, p. 255.



a wonderful creature: and now that he is removed from amongst us people judge him more tenderly, and more fairly estimate his greatness. For infirmities such as he possessed there are excuses the force of which can be felt only by those who have had some large experience of human nature and its frailties, or who have themselves felt the craving for stimulus after the excessive exertion of mind.”

From this letter it becomes clear that it was Charles Graves who was of the opinion, understandably since he was the one who warned Hamilton twice, that Hamilton craved for alcohol, seemingly even until his death; that that was his “infirmity”. These opinions also being strikingly similar to those of Graves it may be concluded that, since Charles Graves was in Dublin while Graves was not, he will have been Graves’ main source of information in real time indeed, and that Graves more or less accepted the opinions of his brother.

Of course, it is not known what was said in the counsels, and it is also not known what would have happened if Charles Graves had not warned Hamilton. As argued before, it remains to be very unlikely that Hamilton would have gone so far as to let alcohol hinder him doing his mathematics and writing his books on quaternions. But the counsels concerning Hamilton’s reputation, as an onlooker and a friend Charles Graves could not risk Hamilton to react so late that the damage to his reputation would already have become insuperable.<sup>55</sup>

### William Edwin

The second most important informant, although after Hamilton’s death, seems to have been William Edwin. Graves and William Edwin certainly knew each other; Graves helped arranging for the publication of the *Elements*, William Edwin and Archibald asked Graves to write the biography, and as mentioned earlier in 1866 William Edwin sent notes about his father to Graves which he reproduced “as the truthful notes of an observer possessed of special advantages.” Yet the coarse, humorous, vivid and observing writing style in which William Edwin wrote his *Peeps* makes it a bit surprising that Graves took some of his stories so literally.

But the *Peeps* were of course published after the biography, and Graves had perhaps not recognized William Edwin’s observing and ironic mind; it is very well possible that William Edwin was able to hide that if he chose to. It is known that Graves did not have a very positive opinion about him, yet not having much first hand information about Hamilton’s daily life William Edwin’s stories may have very precisely confirmed the gossip while they also wonderfully fitted in with Graves’ opinion about Lady Hamilton’s shortcomings. Or it may have been the other way around; confirming the gossip the stories may further have helped form Graves’ very negative opinion about her.<sup>56</sup>

### Misconceptions

That Graves apparently did not realize how William Edwin wrote his stories seems to have caused misconceptions in the biography, namely about Hamilton’s motives

<sup>55</sup> [Graves, 1889, p. 224], p. 421, [Hankins, 1980, p. 378], [Hankins, 1980, p. 453 note 102]

<sup>56</sup> See p. 341, p. 497. For an example of William Edwin’s writing style see p. 20, for more stories see p. 371, for Graves taking some stories literally see p. 354. Graves may have read William Edwin’s 1865 *Scenes in the life of a Planter’s Daughter*. [By W.E.H.]. Dublin: George Herbert.



to sip porter at home, the irregularity of his meals, and the combination thereof. Graves wrote about Hamilton's motives for sipping porter in the third volume of his biography, in the chapter 'A Gathering of Fragments', where he discussed the notes he had received from William Edwin. And although this fragment was mentioned earlier, in order to facilitate the discussion hereafter a large part is repeated here: "It will be remembered by the reader of this biography that Hamilton was accustomed, even up to the last year of his life, to work continuously in mathematical research or arithmetical calculation for very many consecutive hours. [...] To continue to the end a task, in which good progress had been made, required, as he was convinced, support and stimulus for the brain, and this he administered to himself in the injurious form of porter taken in small sips as he felt fatigued. The need thus experienced, connected as it was, with his disinclination to be disturbed at his work by regular meals, was, according to his son's testimony, the principal cause of his recourse to alcoholic stimulant."

But before discussing the misconceptions which can be recognized through this fragment, it should be noted about this essay that having challenged the literalness of the stories about Mrs. Comerford and Hamilton's teaching at the blackboard, while at the same time assuming that in this case William Edwin's information should be taken even very literally, may seem to be on the verge of being presumptuous, and potentially endangers the credibility of the following discussions. The reason to do it anyway is twofold. First, although this information actually strongly reduces the severity of Hamilton's drinking at home since, however unhealthy it may have been, becoming drunk was not his goal, even without accounting for this mitigating information it was shown with the AUDIT test, thereby having taken very high limits within the context of Graves' biography, that Hamilton never severely risked becoming an alcoholic. Second, this description about Hamilton's motives to sip porter fits in with everything that is known about him, including Graves' remarks that he was always temperate at home, while the idea that he drank at home because he craved for alcohol would make it very difficult to understand how he could have worked so extremely steadily; that would even be very illogical.

Thus taking this information literally indeed first Charles Graves' misconception about Hamilton's motives to sip porter becomes apparent: sipping porter to be able to carry on with an investigation is not the same as drinking alcohol to unwind "after the excessive exertion of mind" as he wrote to Larcom. The first motive means that he did not aim at becoming drunk since he wanted to finish work, while the second would mean that he thought he needed alcohol to ease his mind, perhaps to be able to fall asleep. But that has never been mentioned in the biography; Hamilton does not seem to have had sleeping problems or general problems with unwinding, he just did not want to stop when in the middle of "some too fascinating study." Which is actually quite understandable when it is realized what, with his enormous mathematical powers, the range might have been of what Hamilton could see or even discover in one session; his use of the words "mathematical trance" seems to give a rather good idea of what that must have looked like.

In order to discuss two other misconceptions also two parts of Graves' dark passages, both parts of the veils he laid over the biography regarding alcohol, are repeated here. While describing 1840, Graves writes that after Lady Hamilton came back "the old want of governance was again felt, and grew habitual. The consequence

was deeply and permanently injurious to Hamilton. He had now no regular times for his meals; frequently had no regular meals at all, merely resorting to some cold meat on the sideboard, when hunger obliged him to intermit his scientific labours; and the fire and hot coffee, which in his earlier experience used to await him at night, when in the small hours he desisted from the work of observing, were succeeded by a provision of porter, which dissipated chill by a stimulus less effective, and fraught with inevitable danger." And introducing the 1846 event at the Geological Society Graves writes: "As time went on, partly from the ill-health of his wife, he fell into the habit [...] of carrying on his absorbing studies regardless of any fixed hours for meals, and instead of continuing his former practice of diffusing vital warmth after the vigils of the meridian room by the safe comfort of a cup of hot coffee at the fireside, he adopted one that was fraught with inevitable harm. It was thus, I have learned on good authority, that an habitual craving for such stimulus was originated."

A misconception herein is that Hamilton drank porter to get warm again after work. Apparently not used himself to being "so absorbed in his studies" that he would "continue at his work for unreasonably long hours," Graves seems to associate it with the chills of observing. But that had had a bad effect on Hamilton due to his bronchitis; becoming so cold during work that thereafter coffee would be needed to warm up again would therefore perhaps have been even more unhealthy than the drinking of porter itself. And if warming up had been Hamilton's goal he more likely would have chosen liqueurs as had been common in his youth; after having jumped into the water with O'Brien they were given "some excellent ginger cordial and other liqueurs" by Lady Dunraven. Even in winter it will hardly have been freezing in his study though; it is known that there was a fireplace since he used it to burn papers.<sup>57</sup>

The second and most influential misconception is the one about Hamilton's meals. Graves' directly connecting drinking porter with being hungry, thereby rounding off the idea that Lady Hamilton was responsible for Hamilton's "injurious habit", can be found in the above repeated passage from the third volume, in which according to him William Edwin 'admits' that "to continue to the end a task" his father sipped porter "as he felt fatigued," that this need was connected "with his disinclination to be disturbed at his work by regular meals," and that that was "the principal cause of his recourse to alcoholic stimulant." It was doubted earlier whether William Edwin agreed on the "injuriousness" of Hamilton's "habit", and the clause about the meals does sound like an insertion by Graves. But what William Edwin did not say was what Graves wrote in the passages from the 1840s descriptions, that Hamilton "frequently had no regular meals at all, merely resorting to some cold meat on the sideboard, when hunger obliged him to intermit his scientific labours," and he definitely never said that that was due "partly from the ill-health" of his mother.

The connection, thus apparently made by Graves, between the skipped meals and the porter may in itself have been true of course; if Hamilton did not come to dinner he will have been hungry, and to finish his work he needed energy. But what William Edwin said was that Hamilton did not come to dinner during the first stage of a mathematical investigation, the stage of "contemplation", and that that was the stage during which they brought in a "snack", a "chop or cutlet"; he did not mention anything like that regarding the other two stages. It is of course possible that William

<sup>57</sup> [Graves, 1889, p. 239], p. 428, p. 404, p. 103, [Graves, 1885, pp. 334-335], p. 328, [Graves, 1885, pp. 505-506], p. 414, [Wayman, 1987, pp. 70-73], p. 432, p. 161, p. 95, p. 361

Edwin mentioned that more clearly to Tait than to Graves yet it is very unlikely that Graves did not read Tait's 1866 article. The meat will, by the way, have been freshly cooked and warm when brought in, which can be derived from Ball who writes that "soaring aloft in mathematical speculation, Sir William was utterly oblivious of the sound of the dinner bell," which of course means that dinner was ready but Hamilton just did not attend; the reason the meat turned into "cold meat on the sideboard" was because he did not react. If he had really gotten hungry then he simply could have eaten the "snack"; and it is very likely that he often did indeed just that, and sipped porter later because he wanted to finish something but was tired already.

Thus claiming that there were "no regular times for his meals," that Hamilton even "frequently had no regular meals at all," and that that was the reason why he had to take "recourse" to porter is, even for Graves in his search for excuses, very far fetched, and it is rather difficult to see why he got so carried away. Perhaps he was worried that his readers would underestimate the impact of Lady Hamilton's 'weakness of body and mind' since that would make it almost impossible, in those times in which temperance was widespread, to show that despite his very bad reputation Hamilton had actually been a wonderful man.

It became defining for how Hamilton was seen; his son's seemingly happily exaggerated stories and Graves' interpretations added to his unworldly image. The emphasis on Hamilton's days of being lost in his thoughts and not coming to dinner completely predominates the fact that there were two other stages of investigation; that of "final polishing" and writing on his fingernails when he was in his beloved garden, and that of "throwing his own mind into the didactic attitude" and giving try-outs in such a way that even "the ladies" found that interesting.

And then there were the many days on which he simply had to do something: fulfil some duty, receive members of the public at the Observatory, visit friends and attend dinners, marriages, funerals. But Hamilton must have been a very easy subject to gossip about; even Whittaker's story about the lonely cow as told by Wayman seems to be exaggerated although not by Whittaker. Since it is rather unlikely that Hamilton would not know why a cow gives milk although he had three children, was a fervent walker, loved nature and thus saw many animals in many seasons, the story seems to be more indicative of his difficulties to talk with the farmers around him than of some utter unworldliness. Every now and then he surely was "soaring into a high region of speculative thought," but certainly not always.<sup>58</sup>

### Graves' mixed feelings and criticisms

As mentioned earlier, Graves seems to have almost idolized Hamilton except of course for his "weakness", yet every now and then another side of Graves can be seen in which he is extremely critical. Describing how Hamilton visited, during the week of the 1855 meeting of the British Association in Glasgow, the Duke of Hamilton, he writes: "During the week of the meeting he joined an excursion-party to the Isle of Arran, and with a select number of its members was received by the Duke of Hamilton at a *déjeuner* at Brodick Castle, Sir Roderick Murchison [(1792-1871)] introducing him personally, and bespeaking for him the place of honour among the guests. This visit was one of great enjoyment to Hamilton. The conversation which passed

<sup>58</sup> See p. 428, p. 350, p. 359, p. 46, p. 348.

led to a short but cordial correspondence. Hamilton had mentioned, perhaps quoted, to his host Aubrey De Vere's poem to the memory of the *Highland Mary* of Burns, and the Duke had the tact to recognise in Hamilton a namesake as well as a savant. Accordingly Hamilton afterwards forwarded to him a copy of Mr. De Vere's poem, adding (let it be confessed) his own Dargle Verses, and made good his title to his name by using and calling attention to the impression on the envelope of his father's seal, which bore the Hamilton crest and motto; and in reference to his own branch of the family, in a subsequent letter to the Duke, he took occasion to write: – "Sir W. R. H. has, with the exception of his two sons William and Archibald, only one living male relative of his own name with any traceable degree of connexion: namely, his cousin the Rev. James Hamilton, who has the living of Loughcrew in Meath, and who (according to family tradition) is the heir to a dormant baronetcy."<sup>59</sup>

Next to the seemingly patronizing remark that the Duke had the "tact to recognise in Hamilton a namesake as well as a savant," Graves' openly showed shame about Hamilton sending his Dargle verses can be found throughout the biography. It already started with his aforementioned criticisms about Archibald Hamilton's letters; Graves comments on both Archibald Hamilton's first letter to his son and on his last. About the first letter Graves writes: "To give it at length would open it needlessly to criticisms which could not be gainsaid of its common-place and inaccurate expressions, but it would be unjust to the affectionate heart and the devout spirit of the writer not here to put on record this earnest enforcement on the child of whom he was proud, of his obligation to be before all things a pious, humble, serious, loving Christian; and we cannot doubt that his letter was attended by some of the effect he intended it to produce." About Archibald Hamilton's last letter Graves writes: "I may perhaps have given larger extracts from this and the preceding letter from the same pen than to some readers may seem justified by their inherent value. I may plead in excuse that I have been desirous of setting in light the memory of a man for whose character I have found it impossible not to conceive a warm regard – a man who certainly was imprudent, and cannot be spoken of as possessing an intellect thoroughly cultured and trained; but, at the same time, one whose intellect was of great natural strength, and who, notwithstanding his imprudence, manifested immense practical ability and sagacity, and who withal was endowed with a warmth of heart and fidelity of nature – shrinking from no labour in the exercise of duty and affection – which more than make up for any intellectual defects."

Except perhaps for the "imprudence" and the "defects" this actually may not seem too harsh, until it is combined with remarks on earlier pages where Graves had written: "[Archibald Hamilton] had not had the advantage, which his elder brother had enjoyed, of a University education, and therefore his style, as exhibited in his letters and other writings left by him, will not always abide the criticism of a grammarian or logician; and its conventional verbiage and rhetorical amplification cry out often for the pruning-knife: yet all that comes from his pen stirs one with its vigour, its brightness, and its geniality." Commenting on Archibald Hamilton's letters Graves tries to end making positive comments, wrapping his criticisms in a blanket of warm words about Archibald Hamilton's beautiful character, but in fact he just tears him to shreds. Something very reminiscent to how he wrote about Hamilton, after having described his visit to the Observatory in 1829.

<sup>59</sup> See p. 307, [Graves, 1889, p. 22]. See for James Alexander Hamilton and Loughcrew p. 218.

Graves thus was judgemental about Hamilton's father, or rather about his letters, even harshly judgemental about his wife, and he was also very judgemental about his sons. In a letter to Mrs. O'Brien, Ellen de Vere, written on the 2<sup>nd</sup> of June 1873 as part of the correspondence with her, upon answering her "request about Hamilton's children" he is unmistakable: "The eldest son, William Edwin, passed creditably through College and became a Civil Engineer. His intellectual powers are of a high order, but he has no moral principle, has lived a most irregular life, and is now near Toronto, living from hand to mouth teaching and lecturing. The second son, Archibald Henry, also passed through College creditably, and became a clergyman. In some respects his intellect is also of a high order, and he is a good man both morally and religiously; the but in his case is that eccentricity in him seems fast ripening into insanity. He commuted and compounded, as a Curate, and has given everything away – mostly to the poor, and is now almost entirely dependent on his brother-in-law, Archdeacon O'Regan, who married in 1869 the only daughter of Sir W., a sweet bright shy and rather eccentric girl, but also religious and good. She was as happy as a woman could be for about a year and died after giving birth to a son who lives and for an infant promises to be a remarkable man. ... His daughter was very dear to Sir W. and perhaps gave him the only sweetness of affection tasted by him in his latter years."<sup>60</sup>

It is not immediately clear why Graves would be so critical about Hamilton's family if he saw Hamilton as a friend. The most obvious reason seems to be that Graves had set very high standards for himself; he seems to have adhered to very strict upper class norms, and it can be felt throughout the biography that writing it would have been much more pleasant and honourable for him if also Hamilton would have done that. Indeed, he had been very happy that Hamilton had entered into the upper class circles; uncle James introduced him to the Disneys, he befriended Maria Edgeworth, Adare, Adare's parents, the De Veres, and later for instance Lord Northampton. All these people were, apart from upper class, educated, literary and poetical, and also Graves came from a well-known family of literary and scientific men. Hamilton on the contrary had entered college as a very remarkable student, but of "very moderate means"; only his superior mind had brought him into these circles.

The worth Graves attached to Hamilton's entering the upper classes can be recognized in the choices he made for the biography, giving many letters of high-class people but hardly any of private friends, family and neighbours; and in the remark he made when Lady Hamilton was suffering from her first "illness of a nervous character" and Sydney had taken over the household, that "his children came under that regulation as to the minor points of outward appearance and observances which became their birth and dispositions." Graves must have been disappointed; not only was Hamilton's father not able to write letters without the need of a pruning-knife but also when, according to Graves, Hamilton could have married Ellen de Vere and through her completely enter the upper class, he did not marry her, he instead let her slip through his fingers.

About Hamilton's character Graves is, generally, very positive, and that also holds for his sisters although he hardly mentions Archianna, "Grace [...] lived to be one of three sisters who were the invaluable companions of his youth and early

<sup>60</sup> [Graves, 1882, p. 56], p. 31, [Graves, 1882, p. 71], [Graves, 1882, p. 9], p. 81, [Hankins, 1980, p. 382]. Flaws were indeed a reason for Graves to leave letters out, see footnote 70 on p. 51.

manhood; the two others were Eliza [...], closest to him in age, in love, and in intellectual sympathy, and who gained for herself an independent name as a poetess; and Sydney [...], whose intelligence received with eagerness in her girlish days his instruction in the elements of mathematics, and repaid it in after years by assisting him in the reduction of astronomical observations." Perhaps each of these three sisters, but in any case Eliza, who had received very complimentary comments from Wordsworth, could have assisted Hamilton in entering the circles of the upper classes, yet even with such sound sisters Hamilton married Helen Bayly who was, although she was landed gentry, not a member of the upper classes and probably even afraid of, or too impressed by, higher-class people. She was not very distinguished or literary or poetical, and Graves may have recognized her in his eyes low intellectual and cultural status in their sons, who also were not very distinguished. Only Helen Eliza could meet with his approval; she was "eccentric" and "shy", but that was apparently outweighed by the fact that she was also "sweet", "bright", "religious and good".<sup>61</sup>

That eccentricity, explicitly mentioned in case of Archibald and Helen Eliza, also held for how Hamilton was seen by his neighbours, and that must have been hard for Graves; not only did Hamilton not completely enter the upper class although he befriended many members thereof, also his eccentricity led to gossip. It was hardly a problem if members of the upper class were eccentric, or even drink much as could be seen in Hamilton's asking permission from Lord Heytesbury to "pledge him in water," but in order to be seen as good people it was important that, whatever they did within the safety of their castles, in the eyes of the outside world they lived their lives in strict and healthful order, and if they were landlords they had to be loved by their tenants. But Hamilton did not study in some castle or safely within academic quarters in Dublin, unseen by the members of the rural community surrounding the Observatory, and now it was Graves' difficult task to show the world that in spite of all the gossip Hamilton, as one of the very important people of Ireland, had been in heart and mind worthy of his knighthood and of a place among the upper class.

### Some possible reasons for the veils of darkness

It is not known why Graves chose to drape his veils over the biography instead of following Hamilton's own opinions about his drinking which also could have been an adequate defence; many people still drank alcohol during Hamilton's life. The reason Graves chose to give his own opinions will have been influenced by the spirit of the times in which the biography was written, but also by his criticisms. And the fact that he seems to have disagreed with many of Hamilton's decisions allows for the possibility that he just did not believe Hamilton's own explanations.

Graves regarded Hamilton as 'simple', a word he regularly used for Hamilton in the biography. Not having recognized the conscious psychological change Hamilton made in the summer of 1832 when he finally learned how to handle his melancholy feelings, Graves seems to have concluded that this 'simpleness' also meant that Hamilton could in fact not take care of himself, and that the people around him, especially his wife, should have stopped him from skipping meals, working through the night and drinking alcohol. This view on Hamilton is highly reminiscent of that of Miss Emmy Porter, who was angry at Lady Hamilton for "allowing him to stay in

<sup>61</sup> [Wayman, 1987, p. 55], p. 328, [Graves, 1882, pp. 1-2]



lodgings in Dublin when he was attending TCD, instead of insisting upon his living with friends who would have looked after him,” and even “vetted the companions he made.” Combined with stories such as the one about the lonely cow, in which Hamilton seemed to be a very unworldly genius, it is thus very well possible that many more people regarded Hamilton as unable to make his own choices. And either Hamilton did not know he was regarded as such, or, perhaps connected to his striving to remain humble, he did not feel a need to convince them otherwise.<sup>62</sup>

Attaching so much importance to an ordered lifestyle that it could explain Hamilton’s “obscurator” may, next to high-classness, also have had to do with the fact that Graves did not have children; contrary to Hamilton he apparently had a healthy wife, Helen Hutchins Bellasis (1809-1888), enabling them to lead a very orderly life, visit and invite many friends, and concentrate on beauty and cultivation. Something which was not granted on a daily basis to Hamilton with his passion for mathematics leading to his disorderly life, his wife with her weak health, and his children to worry about. It is of course not known if, and if so how much, the Graves couple suffered from not having children; most people do want to have children when they marry, and Hamilton even estimated “the happiness of any friend of mine by the instance of his or her having a daughter.” That was something Hamilton had, and Graves had not.

As regards Lady Hamilton’s illnesses “of a nervous character” it can, as mentioned earlier, be wondered what the influence was of the illness of Graves’ youngest sister Caroline who apparently died after a “mental breakdown”. It may have influenced Graves’ stance towards Lady Hamilton’s “weak health”; Graves believed that in the summer of 1832 Hamilton had been so concerned about her health that that had “prepared the way for tenderer and warmer feelings,” while it can be assumed that according to him her weak health instead should have warned Hamilton and that, famous as he already was, he should have decided not to take such a risk.<sup>63</sup>

### Graves’ choices

Also strongly influencing the atmosphere of the biography were the earlier mentioned choices Graves made about which letters and notes to incorporate and which to left out. Hamilton was a very prolific writer and so were many of his correspondents, for instance, Trinity College Dublin holds around one hundred letters from John Graves to Hamilton, written between 1825 and 1859.<sup>64</sup> Graves had to make very strict choices, and he needed more than twenty years to write the biography. If Graves had not performed this arduous task, there would not be any good view on Hamilton’s life, but at the same time he used his strong opinions about the importance of intelligence and cultivation to select which letters from Hamilton’s many correspondents he should give and which he should not, and he even made judgements about whom Hamilton should have become friends with, something which can be found throughout the biography. He judged Lady Hamilton by these standards and in his eyes she failed them, contrary to Ellen de Vere who stood up to them.

<sup>62</sup> See p. 193, p. 118, p. 82, p. 202, p. 485, p. 440. Also for instance Ingleby called Hamilton ‘simple’, but in a very different way, see p. 44.

<sup>63</sup> See p. 215, p. 127. For Graves’ sister see footnote 102 on p. 377.

<sup>64</sup> See *AIM25 : Archives in London and the M25 area*, Graves Anagrams. [www.aim25.ac.uk/cats/13/3491.htm](http://www.aim25.ac.uk/cats/13/3491.htm) [Accessed 11 July 2015].



Graves' choices are clear; he mainly gave correspondences with members of the peerage and very important literary or scientific men. These social circles must have been relatively small since next to the fact that information about almost all the people named in the biography can be found on the internet, the majority of the people in Graves' biography can be found to have not only a connection to Hamilton but also to each other. Another choice is motivated by Graves' opinion that some letters were too personal such as some letters from Eliza, and all letters containing information about love and marriages. Letters from lower ranked people or from Hamilton's direct family, private friends and other correspondents, of which there must have been many, are only given when necessary, and apparently only if not in need of the pruning-knife.

Graves was searching, in Hamilton's correspondences, for information interesting enough to give to his doubtlessly learned readers; people who had enough money to buy his books and who would be interested in reading about Hamilton. Since he was also trying to re-establish Hamilton's reputation, the subjects should be the ones showing Hamilton's greatness: science, religion, philosophy and metaphysics; subjects which were probably not discussed much in correspondences with family and lesser learned friends.

And this is one of the main problems with this biography: Graves wanted to be honest, and therefore he had to write about the alcohol. But at the same time he was trying to avoid writing too much about domestic subjects, not expecting his readers to appreciate very domestic letters in general. While showing what a wonderful man Hamilton actually was, he gave as the reason why Hamilton drank alcohol the "relaxation of domestic order" after Lady Hamilton returned from England, but precisely his choice to hardly give domestic letters makes it so very difficult for the reader to judge for him- or herself about these explicit domestic circumstances. Unless willing to reread and scrutinize the biography, the reader has to make do with Graves' ideas about Hamilton, and Graves was satisfied with his conclusion making him very convincing; he clearly believed that he had found the "originating cause" for the majority of Hamilton's troubles.<sup>65</sup>

## 11.6 A Victorian biography

In the Victorian era it may have been acceptable that a husband was so dependent on his wife that unless she was utterly perfect, if he became an alcoholic everyone would believe that it was indeed her fault. But Hamilton did not think like that himself; in his letter of November 1832 he was absolutely clear, he knew about and accepted Helen Bayly's illnesses. Strongly suggesting that they consciously chose this life together is that Hamilton was so famous that he easily could have found a much better paid position, certainly outside science. Lady Hamilton would not have to do anything anymore; they would have been able to just hire someone to manage the complete household. But he chose his mathematics and she apparently granted him to work the way he did and just made a life next to his.

For Graves it must have been hard indeed, writing an honest biography during such a socially strict era; it led him to write in the preface that he had been "wishing

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<sup>65</sup> See p. 485. See for Graves' opinion on domestic letters p. x.

that the memory of my friend had been more fortunate.” But Hamilton’s well-known “insidious habit” was not the only difficulty, perhaps even worse were the secret six-week correspondence with Catherine, the “semi-clandestine” correspondences with Louisa Reid-Disney and Dora Disney-Evans, and the letter to De Vere in August 1855 in which he wrote that he had kissed Catherine shortly before her death. But the worst letter of all was doubtlessly the one to Mrs. Wilde of June 1861 in which he wrote that he had kissed Louisa. Graves had to come to terms with the question how it was possible that Hamilton obviously had no moral objections against secretly corresponding and kissing two Disney sisters while being married, while at the same time he had a reverence for marriage. Hankins suggests that Graves “must have thought occasionally how convenient it would have been if some of those papers had been accidentally mislaid.”<sup>66</sup> And if he really destroyed, as Hankins suspects, the “Neville and Sydney” notebook containing Hamilton and Catherine’s six-week correspondence, than it certainly held for that.

But Graves apparently judged these correspondences innocent, and Hamilton indeed showed how deeply it all had to do with losing his very first love to a forced marriage, which had left him desperate, and Catherine unhappy and broken. If Graves would not have been convinced by that, and reading the letters would have started to believe that Hamilton was not the simple and truthful person he thought his friend had been, he probably would not have written this biography, or he would not have mentioned that writing it he had felt the “desire to be just and truthful.” Indeed, leaving correspondences out because of reputations is not the same as describing someone as having an absolutely beautiful character and “thinking nothing but high thoughts,” while at the same time believing that he was actually cheating on his wife. Graves worked extremely hard to make the remembrance of Hamilton as beautiful as he could, and it can only be said that about the “insidious habit” he perhaps tried a bit too hard to point out well-defined causes instead of following Hamilton’s own explanations. Graves’s decision to completely leave out the correspondences, together with Catherine’s forced marriage and her desperate suicide attempt, will foremost be a sign that he did not have much choice in Victorian Ireland.

### Hamilton’s ever declining reputation

The foregoing interpretations make it more comprehensible how Graves could write a biography in which he seems to nearly destroy the reputation of his friend, but at the same time be so proud of his work that he accepted an honorary degree for it. Indeed, this praise from Trinity College seems to further indicate that the biography was not read the way it is read today, it must have looked very different in the Victorian context. The people from Trinity College knew how bad the gossip about Hamilton had been; soon after the funeral Charles Graves wrote how Hamilton was now “judged more tenderly” and that people now “more fairly estimated his greatness.” They must have been glad that through the biography, in which it was shown how Hamilton lived his important life, how many important people he had impressed and befriended, and how Lady Hamilton’s incapability had led to most of his troubles and thus to the gossip, everyone would know now what a very honourable mathematician Hamilton had been.

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<sup>66</sup> [Hankins, 1980, p. xxi]

The fact that the Disney brothers were worried but Graves carried on anyhow also shows that he was very sure that he did the right thing, that he wrote what he thought was just, and that he did that in the light of his time. But it also shows that he did not at all anticipate the way in which his biography would be read many years later and far outside Dublin. If Graves would have known about the ever more simplified conclusions, from Macfarlane's 1916 *Lectures* in which Hamilton "falls a victim to intemperance" and the many nuances he had given started to diminish already, up to contemporary biographical sketches describing Hamilton as an unhappily married alcohol abuser, he would have turned in his grave.

### A blessed father

Perhaps the strongest indication that Hamilton did not end as an alcoholic can be found in the wonderful statements Helen Eliza and Archibald gave after his death. They had no reason to make their statements more admirable than they felt; they were not trying to restore their father's memory as an answer to the gossip. Both quotations were given earlier in this essay, but are repeated here because they are so utterly incompatible with the remembrance of someone who drank himself to death. But also, having shown now who Hamilton was, to do them, and him, the honour they deserve; every father would feel blessed if he could hear his children saying this.

Archibald responded to Graves' question about his father's intellectual powers: "With regard to his intellectual ability, I really do not pretend to judge [...], having neither part nor lot in the matter. But there is another department in which everyone with a soul is not only entitled, but is bound to judge. I mean of course practical Religion and Morality. It is this, and not in the Intellectual department that I proudly recognise some stir of blood or lineage, however faintly – and once or twice in my life I have felt inclined to claim (in my own mind I mean) relationship with so truly great a character."

And Helen Eliza wrote down the thoughts she had when she stood beside her father's deathbed: "The feelings most vivid were the Presence of God, the fact that my Father was not there and the prevailing sense of rest. I never felt afraid, only awed. ... I realized death when I touched his forehead with my lips and felt that chill which is unlike all else. ... This visitation has utterly abolished the fear of death, I wondered what it was that I had been afraid of all my life. I said to Jane while I looked upon him, "Who would ever think of praying for the soul of that man. We are I think not to insult God by asking for what He has so obviously granted.""<sup>67</sup>

## 11.7 Gossip

In this essay it has been shown, within the boundaries of Graves' and Hankins' biographies, that Sir and Lady Hamilton had a good and even fairly happy marriage, although perhaps not exactly normal according to the standards of their days. The marriage had, as most marriages do, difficult periods, but those difficulties were not due to these two people making each others' lives miserable. With all his romanticism Hamilton remained an attached husband until the end of his life; gossip thus cast the darkest shadow on their memory.

<sup>67</sup> [Hankins, 1980, pp. 383-384], p. 325, [Hankins, 1980, p. 378], p. 262

Throughout his life Hamilton did what he thought he had to do instead of bowing down to social convention. If he had no moral objection to doing something he wanted to do he would not refrain from doing it, and that included drinking alcohol. It was his misfortune that, precisely during his lifetime, the views on drinking alcohol changed so dramatically that his drinking habits were far less accepted in his later years than they were when he was young. In our times Hamilton would have been judged very differently; if he would be called an alcoholic, so would doubtlessly be at least half of the readers of this essay, and so would its writer.

Also as a couple the Hamiltons held on to their own opinions and made the choices which worked for them; if Lady Hamilton had to go to England because she was ill and scared, or go to Nenagh to take care of her mother, than that was her choice, which Hamilton accepted even when it sometimes was difficult, as illnesses and their consequences just are, even more so in their days. And if Hamilton chose to finish work even if it meant not coming to dinner and working through the night Lady Hamilton accepted that; she apparently understood that he had to work like that. Yet it made the Hamiltons look strange in the eyes of contemporaries who did not know them, thereby making them subjects of much gossip.

The writing of this essay will have been worth its while if the daily use of Hamilton's name would, instead of with all the gossip, become associated again with his own description of "a labour-loving and truth-loving man". Indeed, for both virtues Hamilton received his ultimate confirmations; he found in his very truthful wife the calm and peace he had been looking for, and that enabled him to develop by intense labour his system of quaternions. The very strict Victorian era since long being over, there is no reason to continue to gossip about this Victorian couple.

### **A fancied new universe**

Not living in Victorian times anymore, and knowing that Hamilton's feelings about Ellen de Vere had quieted down because she was happy, it can be wondered whether perhaps the quote at the beginning of this essay, in which Hamilton was distinctly conscious of proposing for a moment the question whether the moral laws of the old world would also hold in some fancied new universe, could be the only glimpse, since he of course at once resolved the question in the affirmative, yet it passed, as a question, through his mind, of Hamilton contemplating if in this new universe he would be allowed to openly love both Helen and Catherine at the same time.



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# Sir William Rowan Hamilton

## A labour-loving and truth-loving man

The aim of this essay is to show that, contrary to general belief, Sir William Rowan Hamilton had a good marriage; that in fact large parts of his marriage were fairly happy. It is discussed where the idea of his marriage as having been unhappy came from, and it is shown that according to current standards he was by no means an alcoholic.

The shortest description of Hamilton as a man and a mathematician comes from his friend Augustus De Morgan who, in 1850, wrote in a letter to Hamilton: “When I send you [a bit of investigation], you take it from me, generalize it at a glance, bestow it thus generalized upon society at large, and make me the second discoverer of a known theorem. [...] You make a pair of legs grow out of my head, and turn me upside down to stand upon them.”

In 1858 Hamilton expressed his almost romantic love for Nature and for Dunsink Observatory in this short yet very visual way: “This morning I have unlocked the hall-door, that I might listen more freely to the storm, the tempest, the whirlwind of delight, and of music, with which the birds are now surrounding this house and me.”